

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

#### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + Refrain from automated querying Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

#### **About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at http://books.google.com/

# MARYLAND GEOLOGICAL SURVEY



#### **HARVARD** UNIVERSITY.

Commence of the second second



D'Scarded of the 2/16/84

MUSEUM OF COMPARATIVE ZOÖLOGY.



### BERNHARD KUMMEL LIBRARY OF THE GEOLOGICAL SCIENCES of the Harvard College Library

HARVARD UNIVERSITY

Transferred to
CABOT SCIENCE LIBRARY
June 2005

,			

·			
·			
•			
·			

		•		
٠				
	•		·	

### MARYLAND GEOLOGICAL SURVEY

MIOCENE PLATES

	•	
•		

## MARYLAND GEOLOGICAL SURVEY



MIOCENE PLATES

BALTIMORE
THE JOHNS HOPKINS PRESS
1904

•		
	·	
	,	
•		

## MARYLAND GEOLOGICAL SURVEY



MIOCENE PLATES

J BALTIMORE
THE JOHNS HOPKINS PRESS
1904

QE 121 .A2 v.2.2 .c.2



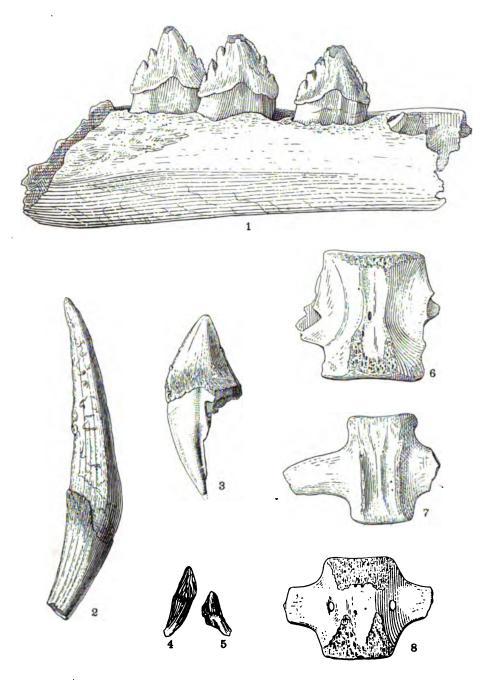
The Friedenwald Company Baltimore, Md., U. S. A.

#### NOTE

Plates I to IX, illustrating the Geological and Paleontological Relations of the Miocene, are bound with the text volume. The following plates illustrate the Systematic Paleontology of the Miocene Deposits of Maryland.

#### PLATE X.

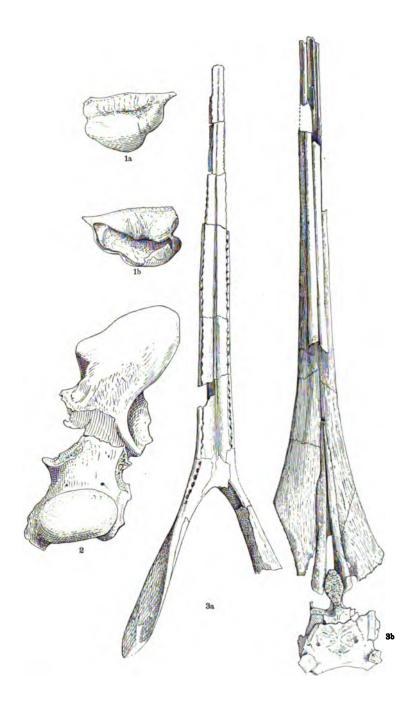
2	AGE
Figs. 1-3. SQUALODON ATLANTICUS Leidy	6
<ol> <li>Portion of the right side of a jaw containing three teeth. Shiloh,</li> <li>N. J. Acad. Nat. Sci., Phila. × ¾</li> </ol>	
2, 3. Teeth from "Miocene of Maryland" labelled "Basilosaurus atlanticus." Acad. Nat. Sci., Phila.	
Figs. 4, 5. Squalodon protervus Cope	7
4. Tooth. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.	
5. Another tooth from the same locality and collection.	
Fig. 6. Priscodelphinus gabbi Cope	9
6. Lumbar vertebra, lower view. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. $\times$ %	
Figs. 7, 8. Priscodelphinus buschenbergeri Cope	10
7. Lumbar vertebra, lower view. Charles County. Acad. Nat. Sci., Phila. $\times \%$	
8. Caudal vertebra, lower view. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. × %	



MAMMALIA.

#### PLATE XI.

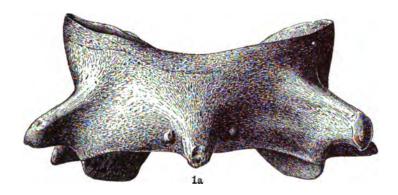
I DAID AL.	
	PAG
Figs. 1a-3b. Priscodelphinus (?) crassangulum Case	12
1a. Inner view of tympanic bone. % mile north of Governor Run. $\times \frac{1}{2}$	
1b. Outer view of the same specimen. $\times \frac{1}{2}$	
2. Posterior view of left occipital region. Same locality and collection. $\times \frac{1}{2}$	
3a. Upper view of lower jaw. Same locality and collection. $\times \frac{1}{4}$	
3b. Upper view of upper jaw and anterior part of the head of the same individual with the occiput removed. Same locality and collection. × 1/4	

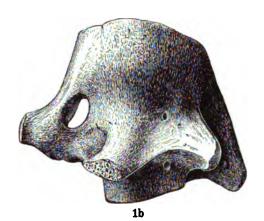


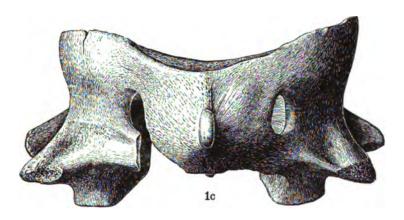
MAMMALIA.

#### PLATE XII.

Figs. 1a-1c. Priscodelphinus grandaevus Leidy	PAGE 15
<ol> <li>Specimen from ¼ mile south of Chesapeake Beach. Maryland Geological Survey.</li> </ol>	
1b. Another view of same specimen.	
1c. Another view of same specimen.	



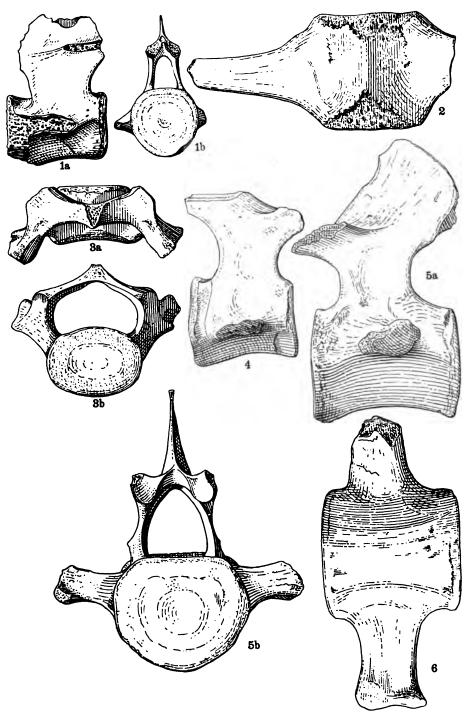




MAMMALIA.

#### PLATE XIII.

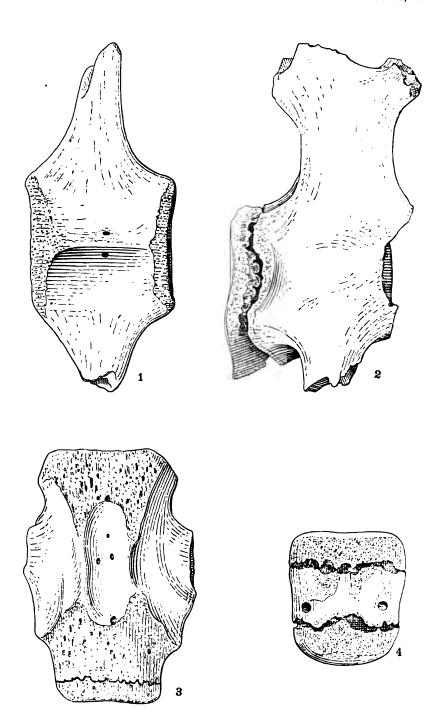
- -	PAG
Figs. 1a, 1b. Ixacanthus stenus Cope	16
1a. Lateral view of lumbar vertebra. Charles County near the Patuxent	
River. Acad. Nat. Sci., Phila. × %	
1b. Posterior view of the same specimen. $\times \%$	
Figs. 2-4. Ixacanthus spinosus Cope	17
2. Lower view of a posterior lumbar. Charles County near the	
Patuxent River. Acad. Nat. Sci., Phila. × %	
3a. Superior view of a cervical. Same locality and collection. $\times$ 2	%
3b. Anterior view of the same. $\times$ %	
4. Lateral view of an anterior lumbar. Same locality and collection. $\times \%$	
Figs. 5a-6. IXACANTHUS ATROPIUS Cope	18
5a. Lateral view of a dorsal. Charles County on the Patuxent River.	
Acad. Nat. Sci., Phila. $\times \frac{4}{3}$	
5b. Anterior view of the same. $\times \%$	
6. Lower view of a dorsal. Same locality and collection. × 3/3	



MAMMALIA.

#### PLATE XIV.

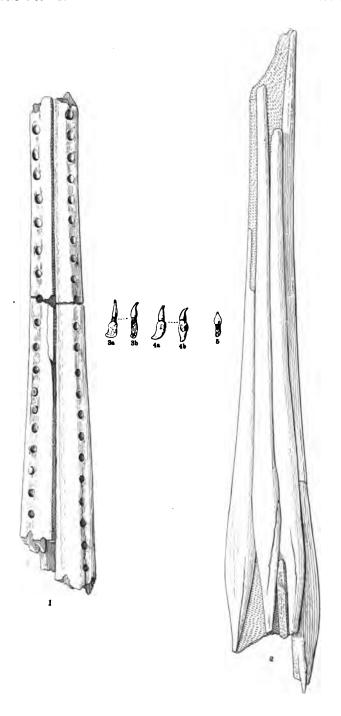
· ·	PAGI
Figs. 1, 2. IXACANTHUS COELOSPONDYLUS Cope	19
<ol> <li>Lower view of a lumbar. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. × %</li> </ol>	
2. Lateral view of a lumbar. Same locality and collection. $\times$ %	
Fig. 3. Zarhachis flagellator Cope	20
3. Lower view of a lumbar. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. $\times \%$	
Fig. 4. Cetophis heteroclitus Cope	23
4. Lateral view of a lumbar. Charles County near the Patuxent	



MAMMALIA.

#### PLATE XV.

Figs. 1-5. Rhabdosteus latiradix Cope	PAGE 24
<ol> <li>Lower view of rostrum. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. X 1/3</li> </ol>	
2. Upper view of another rostrum. Same locality and collection. $\times \frac{1}{2}$	
3a. Tooth from the anterior portion of the rostrum. $\times \frac{1}{3}$	
3b. Another view of the same tooth. $\times \frac{1}{8}$	
4a. Another tooth. Same locality and collection. $\times \frac{1}{3}$	
4b. Another view of the same tooth. $\times \frac{1}{3}$	
5. Another tooth. Same locality and collection. $\times \frac{1}{3}$	



MAMMALIA.

#### PLATE XVI.

	PAG
Figs. 1a-1c. Lophocetus calvertens	sis (Harlan) 20
1a. Lateral view of skull. $\times$	<del>1/8</del>
1b. Lower view of skuil. $\times$ 3	
1c. Upper view of skull. × ½	
(after Harlan)	

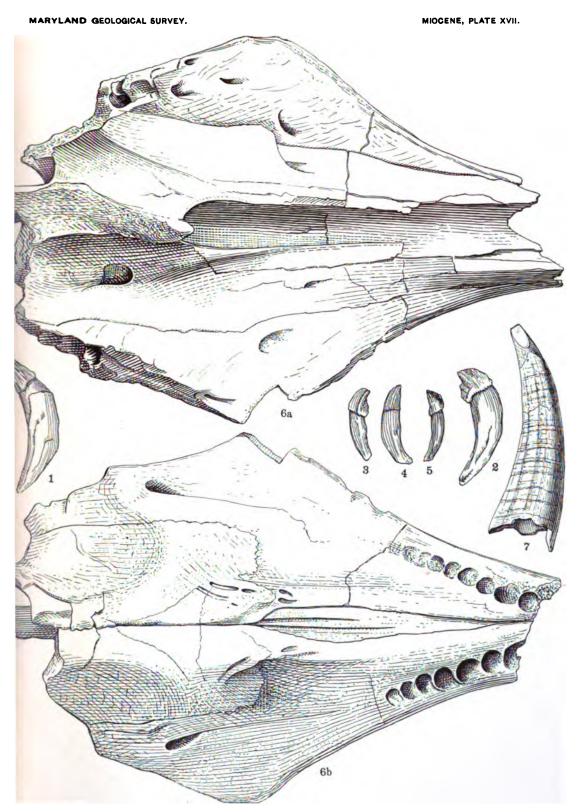




MAMMALIA.

#### PLATE XVII.

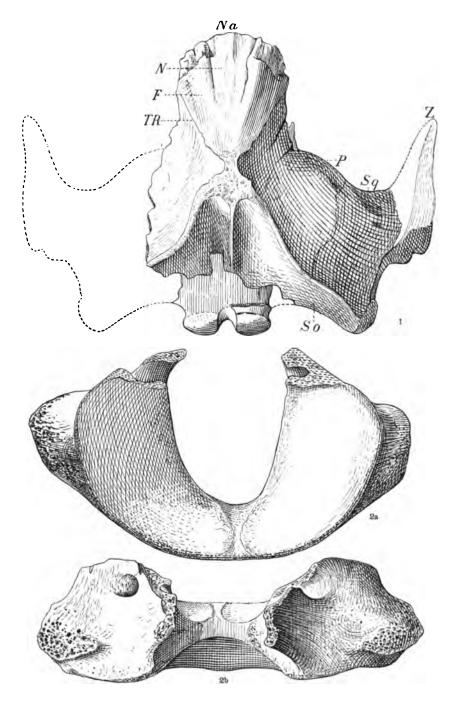
Figs. 1, 2. Delphinodon mento Cope	PAGE 28
1. Anterior tooth. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. × %	
2. Anterior tooth. Same locality and collection. $\times \%$	
Figs. 3-5. Delphinodon leidyi Hay	29
3. Anterior tooth. Charles County near the Patuxent River. Acad. Nat. Sci., Phila. × %	
<ol> <li>Anterior tooth. Same locality and collection. × %</li> <li>Anterior tooth. Virginia. Acad. Nat. Sci., Phila. × %</li> </ol>	
Figs. 6a, 6b. Hypocetus atlanticus (Cope)	30
* 6a. Upper view of skull. Drum Point. Johns Hopkins University. $\times \frac{1}{6}$	
6b. Lower view of the same skull. $\times \frac{1}{6}$	
Fig. 7. Orycterocetus crocodelinus (?) Cope	32
7. Anterior tooth. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.	



MAMMALIA.

#### PLATE XVIII.

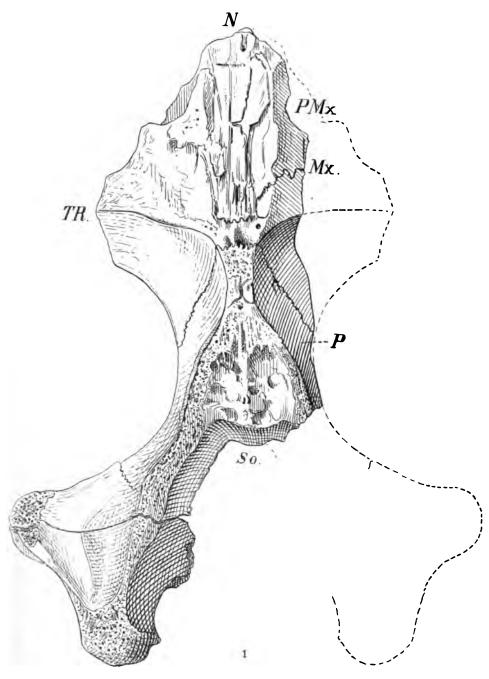
Figs. 1-2b. Metopocetus durinasus Cope	PAGE 36
<ol> <li>Upper view of skull. Near the mouth of the Potomac River.         Museum of the Woman's College of Baltimore. × 1/6         So., Supraoccipital bone; Sq., Squamosal; Z., Zyzmatic; P., Parietal; F., Frontal; N., Nasal; Na., External nares; T.R., Tem-</li> </ol>	
poral Ridge.  2a. Anterior view of atlas vertebra. Same locality and collection.	
$ imes rac{1}{2}$ 2b. Upper view of the same specimen. $ imes rac{1}{2}$	



MAMMALIA.

#### PLATE XIX.

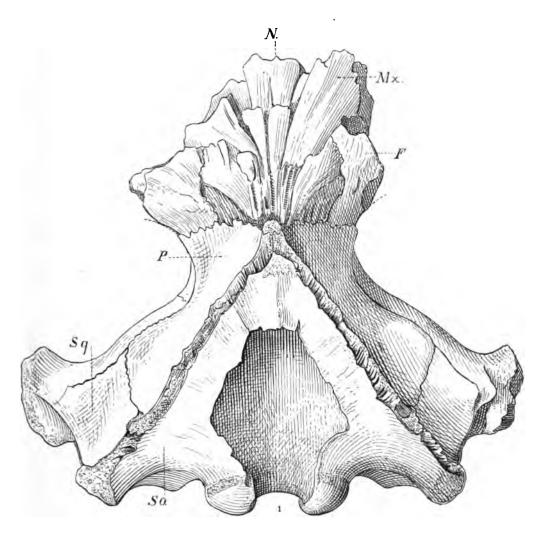
	PAGE
Fig. 1. CEPHALOTROPIS CORONATUS COPE	39
1. Upper view of skull. Johns Hopkins University. × 1/2	
So., Supraoccipital bone; P., Parietal; N., Nasal; Mx., Maxillary;	
Down Dromowillows W. D. Wompowel Didge	



MAMMALIA.

#### PLATE XX.

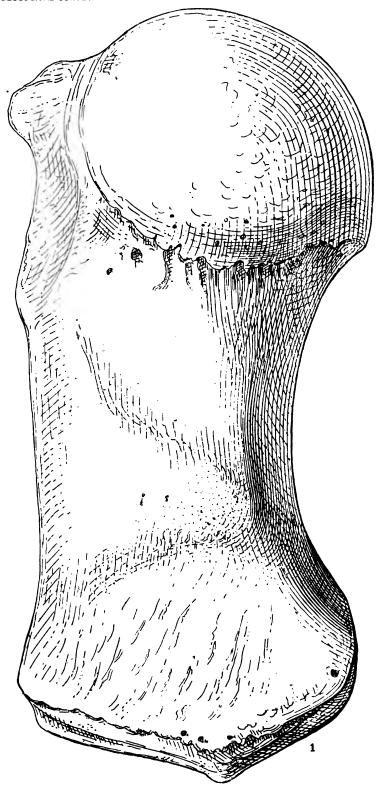
Fig. 1. Ceteotherium megalophysum Cope	41
1. Upper view of skull. Cove Point. Johns Hopkins University. $\times \frac{1}{4}$	
So., Supraoccipital bone; Sq., Squamosal; P., Parietal; F., Frontal; N., Nasal; Mx., Maxillary.	



MAMMALIA.

### PLATE XXI.

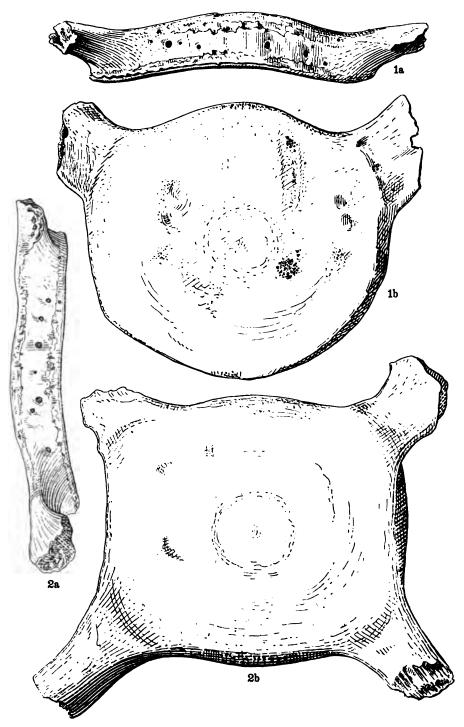
	PAGE
Fig. 1. Cetotherium cephalum Cope	. 44
1. Humerus of right side. Shore of Chesapeake Bay. Johns Ho	<b>p</b> -
king Ilnivargity	



MAMMALIA.

# PLATE XXII.

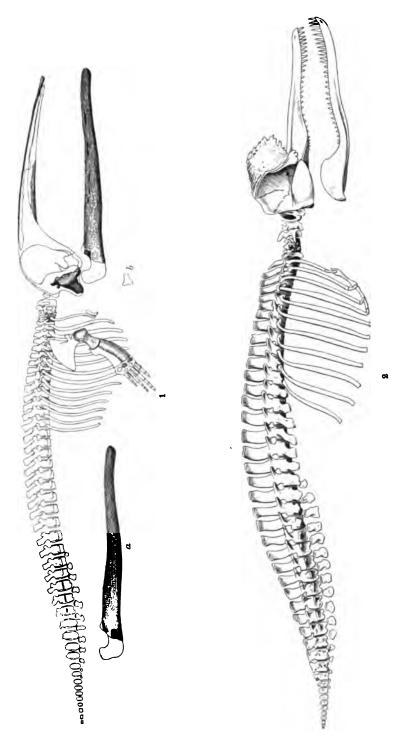
	PAG
Figs. 1a-2b. Cetotherium cephalum Cope	4
1a. Vertebra. Charles County near the Patuxent River. Acad. Nat.	
Sci., Phila. $\times$ %	
1b. Another view of the same vertebra. $\times \%$	
2a. Another vertebra. Same locality and collection. × %	
2b. Another view of the same vertebra. $\times \%$	



MAMMALIA.

### PLATE XXIII.

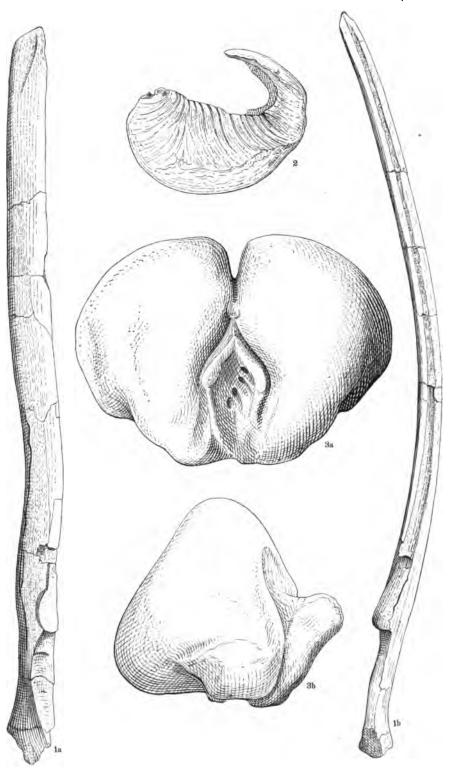
	PAGE
Figs. 1, 2. Cetotherium cephalum Cope	44
1. Restoration, one-fiftieth natural size. The shaded portions are	
the actual specimen of one individual. Charles County near	
the Patuxent River, now in the Academy of Natural Sciences of	
Philadelphia. (After Cope, Amer. Nat., Vol. XXIV, Pl. XXII.)	
Fig. 2. Skeleton of Plakanusla, minus the fore limbs	44
Sala francisco	



MAMMALIA.

# PLATE XXIV.

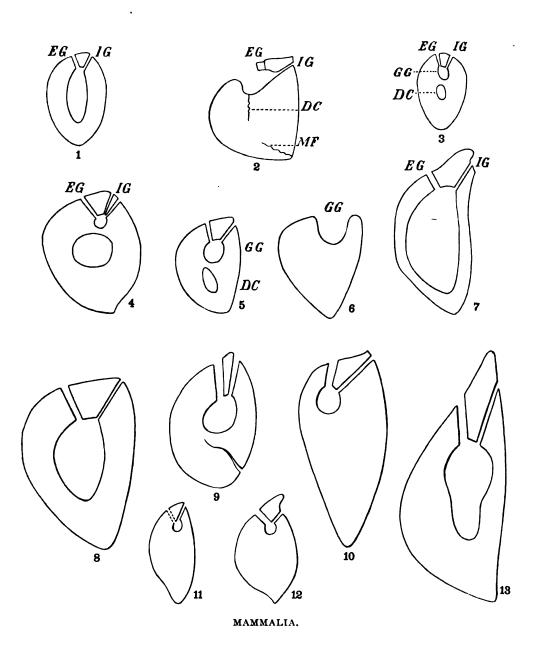
	PAGE
Figs. 1a, 1b. Ulias mobatus Cope	50
1a. Outer view of lower jaw. Miocene of Maryland or Virginia. Johns Hopkins University. $\times \frac{1}{16}$	
1b. Upper view of the same specimen.	
Fig. 2. Balaenoptera sursiplana Cope	54
2. Tympanic bone. Miocene of Maryland or Virginia. Johns Hopkins University. $\times \frac{1}{2}$	
Figs. 3a, 3b. Natural cast of a Cetacean brain cavity	56
3a. View from before. $\times \frac{1}{2}$	
3b. View of the same specimen from the side. $\times \frac{1}{4}$	



MAMMALIA.

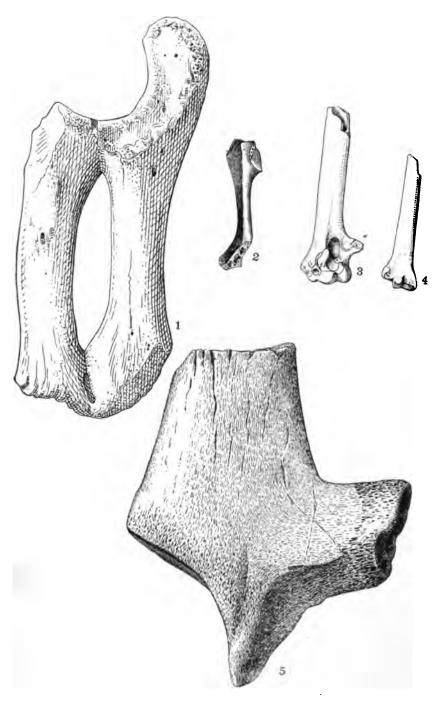
# PLATE XXV.

Lettering: E. G., External gingival canal; I. G., Internal gingival canal; G. G., Gingival groove; D. C., Dental canal.	PAGE
Fig. 1. CETOTHERIUM PARVUM Trouessart	44
Fig. 2. Tretulias buccatus Cope	52
Fig. 3. Siphonocetus expansus Cope	45
Fig. 4. Siphonocetus clarkeanus Cope	47
Fig. 5. Siphonocetus priscus Leidy	46
Fig. 6. ULIAS MOBATUS Cope	50
Fig. 7. Cetotherium polyporum Cope	47
Fig. 8. Cetotherium cephalum Cope	44
Fig. 9. RHEGNOPSIS PALAEATLANTICUS Leidy	<b>. 4</b> 6
Fig. 10. Cetotherium Leptocentrum Cope	47
Fig. 11. Cetotherium davidsonii Cope	34
Fig. 12. Mesocetus siphunculus Cope	34
Fig. 13. Cetotherium cephalum Cope	44



### PLATE XXVI.

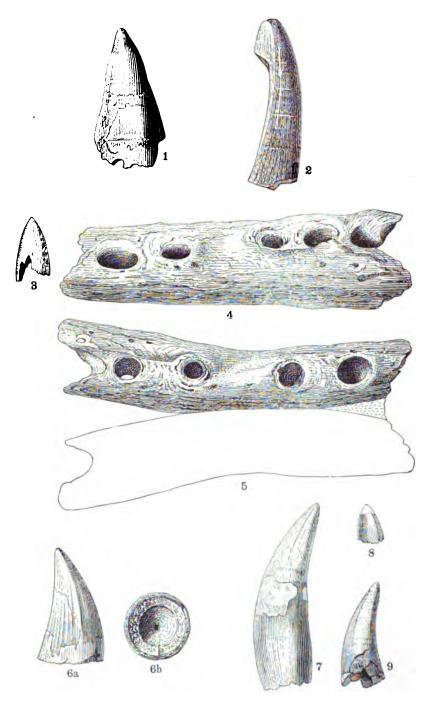
	PAGE
Fig. 1. Trichechus giganteus (?) (De Kay)	56
1. Radius and ulna. Fairhaven. $\times \%$	
Fig. 2. Sula loxostyla Cope	58
2. Coracoid. Calvert Cliffs. American Museum of Natural History. $\times \%$	
Figs. 3, 4. Puffinus conradi Marsh	60
<ol> <li>Distal portion of right humerus. Miocene of Maryland. Acad. Nat. Sci., Phila.</li> </ol>	
4. Distal portion of right ulna. Same locality and collection.	
Fig. 5. Chelone sp	64
5. Proximal portion of scapula. Plum Point. × %	



MAMMALIA, AVES AND REPTILIA.

#### PLATE XXVII

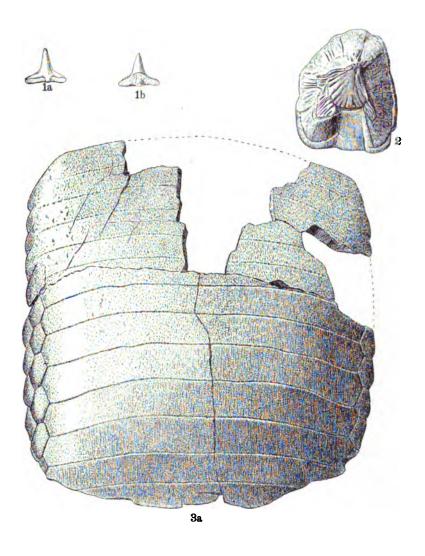
PLATE XXVII.	
•	PAGE
Figs. 1, 2. Thecachampsa (?) sericodon Cope	65
<ol> <li>Tooth. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.</li> </ol>	
2. Tooth. Same locality and collection.	
Figs. 3-5. Thecachampsa (?) sicaria Cope	66
3. Crown of a tooth. (After Cope.) $\times \frac{2}{3}$	
4. Portion of lower jaw. (After Cope.) $\times \%$	
5. Another view of the same. (After Cope.) $\times \%$	
Figs. 6a, 6b. Thecachampsa (?) contusor Cope	66
<ul><li>6a. Lateral view of tooth. Charles County near the Patuxent River.</li><li>6b. Basal view of the same specimen.</li></ul>	
Figs. 7-9. Thecachampsa (?) antiqua (Leidy)	67
7. Tooth. "High cliffs of the Potomac River, 40 miles above the mouth of the river in Westmoreland County, Virginia." Acad. Nat. Sci., Phila. × %	
8. Another tooth from the same locality and collection. $\times \%$	
9. Another tooth from the same locality and collection. $\times \%$	



REPTILIA.

### PLATE XXVIII.

Figs. 1a, 1b. SQUATINA OCCIDENTALIS n. sp	71
× 4/3	
1b. Inner face of the same specimen.	
Fig. 2. Raja (?) dux Cope	72
<ol> <li>Superior aspect of a detached and considerably abraded dermal tubercle. (Type specimen.) Charles County near the Patuxent River. Acad. Nat. Sci., Phila.</li> </ol>	
Figs. 3a, 3b. Myliobatis gigas Cope	78
Patuxent River. Acad. Nat. Sci., Phila.	
3b. Transverse view of the same specimen, taken across its posterior end (at bottom of Fig. 3a).	

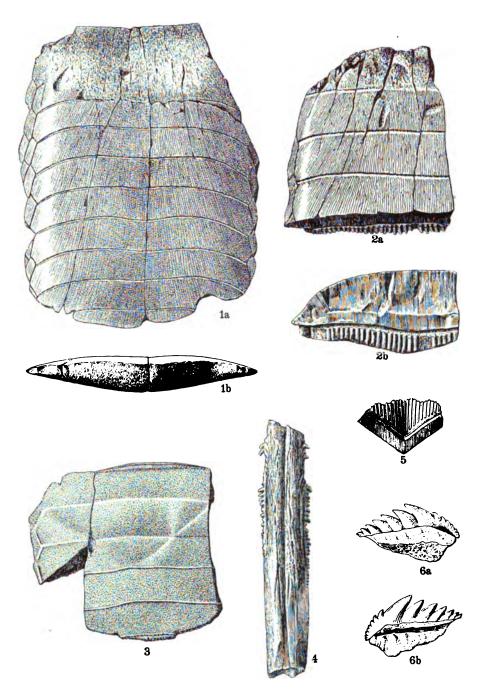




PISCES.

#### PLATE XXIX.

PLATE XXIX.	
	PAGE
Figs. 1a, 1b. Myliobatis gigas Cope	73
1a. Oral surface of lower dental pavement, somewhat worn, and showing line of longitudinal striae or fissures of the gano dentine radiating backwards and outwards. Charles County near the Patuxent River. Type of the so-called "M. vicomi canus." Acad. Nat. Sci., Phila.	,
1b. Transverse view of the same specimen at its posterior end (across the bottom of Fig. 1a).	•
Figs. 2a, 2b. Myliobatis pachyodon Cope	75
<ul> <li>2a. Oral surface of imperfect lower dental pavement, the anterior end shown uppermost. (Type specimen.) Charles County near the Patuxent River. Acad. Nat. Sci., Phila.</li> <li>2b. Transverse view of the same specimen.</li> </ul>	
Fig. 3. Myliobatis francens n. sp	75
<ol> <li>Oral surface of imperfect lower dental pavement, somewhat worn, and showing curved outline of the anterior depression due to wear. (Type specimen.) Charles County near the Patuxent River. Acad. Nat. Sci., Phila.</li> </ol>	•
Fig. 4. Myliobatis or Trygon (?) sp	92
<ol> <li>Portion of large caudal spine of an eagle or sting-ray. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.</li> </ol>	ı
Fig. 5. Aëtobatis arcuatus Agassiz	<b>7</b> 6
5. Inferior aspect of fragmentary tooth. St. Mary's River.	
Figs. 6a, 6b. Notidanus primigenius Agassiz	77
<ul><li>6a. Inner aspect of tooth, the root much worn away. Plum Point.</li><li>6b. Outer aspect of the same specimen.</li></ul>	'

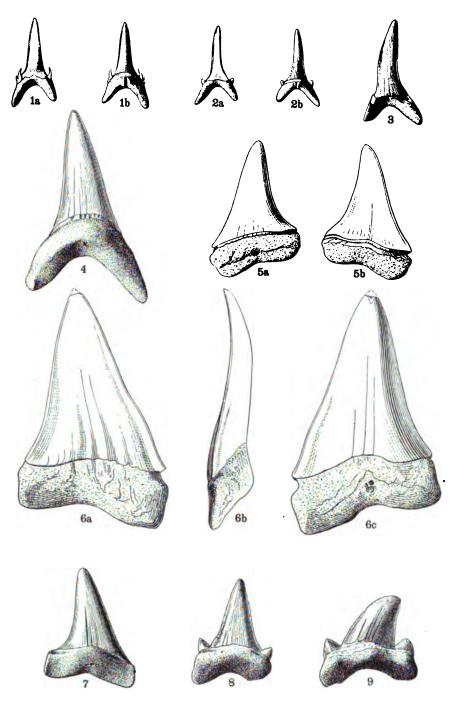


PISCES.

#### PLATE XXX.

TURIE AAA.	
	PAGE
Figs. 1a, 1b. Odontaspis cuspidata (Agassiz)	78
1a. Outer face of a tooth showing a rudimentary second pair of	
lateral denticles. St. Mary's River. $\times 4/3$	
1b. Inner face of the same specimen. $\times 4/3$	
-	
Figs. 2a, 2b, 3. Odontaspis elegans (Agassiz)	79
2a. Outer face of a small tooth. Plum Point. $\times 4/3$	
2b. Inner face of the same specimen. $\times 4/3$	
3. Outer face of a somewhat worn tooth, the lateral denticles broken	
away. Plum Point.	
Fig. 4. Oxyrhina desorii Agassiz	79
4. Inner face of a moderate-sized tooth. Charles County near the	
Patuxent River. Acad. Nat. Sci., Phila.	
Figs. 5a-6c. Oxyrhina hastalis Agassiz	80
5a. Inner face of a medium-sized and somewhat worn specimen.	
Flag Pond.	
5b. Outer face of the same specimen.	
6a. Outer face of a large-sized lateral tooth. Jones Wharf.	
6b. Profile of the same specimen.	
6c. Inner face of the same specimen.	
Fig. 7. OXYRHINA SILLIMANI Gibbes	81
7. Outer face of an average-sized tooth. Fairhaven.	
Figs. 8, 9. Otodus obliquus Agassiz	82
8. Inner face of a small-sized specimen with erect crown. Charles	
County near the Patuxent River. Acad. Nat. Sci., Phila.	
9. Inner face of a small-sized lateral tooth with oblique crown.	
Charles County near the Patuxent River. Acad. Nat. Sci.,	
Phila.	

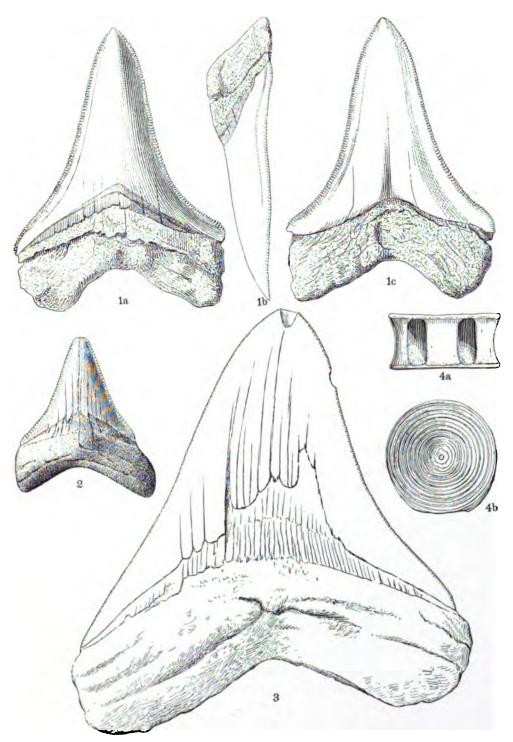
 $\lambda$ 



PISCES.

# PLATE XXXI.

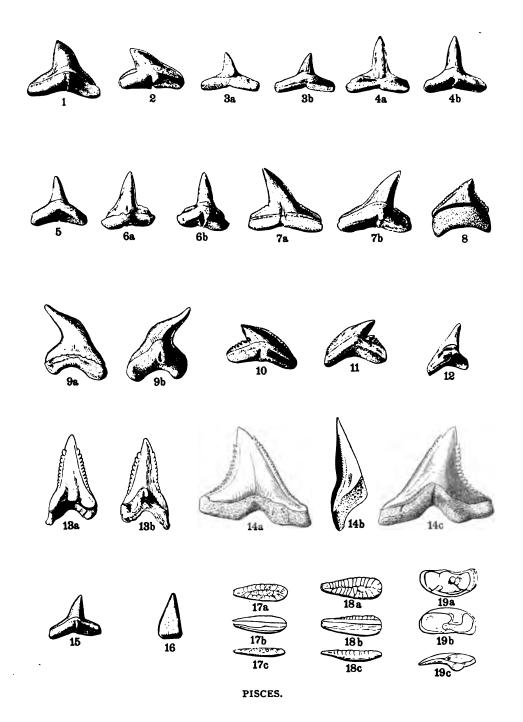
	PAGE
Figs. 1a-3. Carcharodon Megalodon (Charlesworth)	82
<ol> <li>Inner face of an anterior tooth with slender, erect crown. Plum Point.</li> </ol>	
1b. Profile of the same specimen.	
1c. Outer face of the same specimen.	
2. Inner face of a small-sized, slightly worn specimen within thin,	
flat crown of the variety styled "C. productus Agassiz." Plum Point.	
3. Inner face of a large-sized lateral tooth. Fairhaven.	
Figs. 4a, 4b. Vertebral centrum of Carchardon sp	82
4a. Vertebral face. Plum Point.	
4b. Hæmal aspect of the same specimen.	



PISCES.

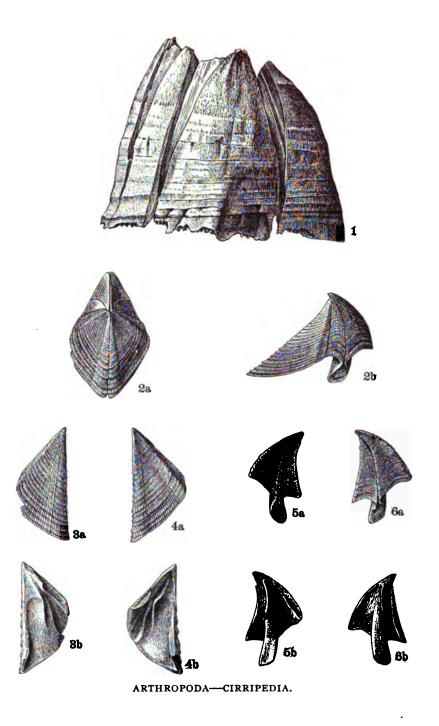
### PLATE XXXII.

	PAGE
Fig. 1. CAECHARIAS (PRIONODON) EGERTONI (Agassiz)	84
Fig. 2. CARCHARIAS LAEVISSIMUS (Cope)	84
Figs. 3-5. CARCHARIAS COLLATA n. sp. (Ex. Cope MS)	85
Figs. 6, 7. CARCHARIAS MAGNA (Cope)  6a. Outer face of a specimen with narrow root. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.  6b. Inner face of the same specimen.  7a. Outer face of a large-sized lateral tooth with oblique crown and faint crimping of its basal edges. Charles County near the Patuxent River. Acad. Nat. Sci., Phila.  7b. Inner face of the same specimen.	86
Fig. 8. CARCHABIAS INCIDENS n. sp	87
Figs. 9a, 9b. GALECCERDO CONTORTUS Gibbes	87
Fig. 10. GALEOCERDO LATIDENS AGASSIZ	88
Fig. 11. GALEOCERDO ADUNCUS Agassiz	88
Fig. 12. GALEOCERDO TRIQUETER n. sp	89
Figs. 13, 14. Hemipristis serra Agassiz	90
Fig. 15. SPHYRNA PRISCA Agassiz	91
Fig. 16. SPHYRÆNA SPECIOSA Leidy	92
Figs. 17-19. OTOLITES of Teleost Fishes	93



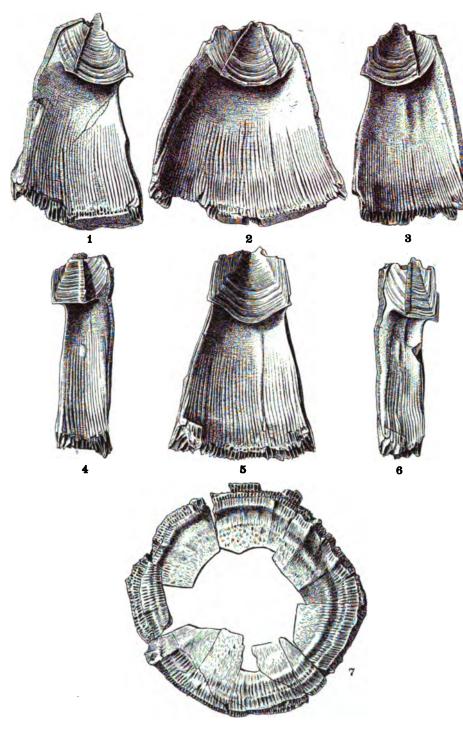
#### PLATE XXXIII.

	PAGE
Figs. 1-6. Balanus concavus Brown	94
1. Lateral view of large specimen. Jones Wharf.	
2a. Scuta and terga. St. Mary's River.	
2b. Lateral view of the same.	
3a. Exterior of left scutum.	
3b. Interior of the same.	
4a. Interior of right scutum.	
4b. Exterior of the same.	
5a. Exterior of right tergum.	
5b. Interior of the same.	
6a. Exterior of left tergum.	
6h Interior of the same	



### PLATE XXXIV.

	PAGI
Figs. 1-7. Balanus concavus Brown	94
1. Interior of left lateral compartment of original of Plate XXXIII,	
Fig. 1.	
2. Interior of rostrum of the same.	
3. Interior of right lateral compartment of the same.	
4. Interior of right carino-lateral compartment of the same.	
5. Interior of carina of the same.	
6. Interior of left carino-lateral compartment of the same.	
7. Basis of the same.	



ARTHROPODA—CIRRIPEDIA.

# PLATE XXXV.

	PAGE
Figs. 1-10 CYTHERE CLARKANA n. sp	98
<ol> <li>Rather short left valve. Plum Point. U. S. Nat. Museum.</li> <li>A left valve of the average length and dimensions. Same locality.</li> </ol>	
3. Unusually elongate right valve. Same locality.	
4. Rather short right valve, without spines on either end. Same	
locality.	
5. Dorsal view of a large specimen. Same.	
<ol><li>Right side of entire carapace differing slightly in outline from the usual form.</li></ol>	
7. Dorsal view of another specimen.	
8. Ventral view of a specimen, broken to show overlap of edges.	
<ol> <li>A small and somewhat macerated left valve.</li> <li>Interior of a short right valve.</li> </ol>	
10. Interior of a short right valve.	
Figs. 11-14. Cythere clarkana var. minuscula n. var	99
11, 12. Two left valves of this variety.	•
13. A right valve, somewhat doubtfully referred to this variety.	
14. Interior of the largest left valve seen.	
Figs. 15-17. Cythere in Equivalvis n. sp	101
15. The left or larger valve. Plum Point.	
16. The smaller and quite differently shaped right valve. Same	
locality.	
17. Interior of another right valve.	
Figs. 18, 19. Cythere plebeia var. modica n. var	103
18, 19. Two left valves of this variety differing somewhat in outline.	
Plum Point.	
Figs. 20-29. Cythere plebeia n. sp	102
20. Ventral view of two valves partly opened.	
21. Right side of an entire carapace of average form and dimen-	
sions, showing inequality of valves.  22. Left valve of the usual form.	
<ul><li>22. Left valve of the usual form.</li><li>23-25. Three entire specimens figured to show respectively dorsal,</li></ul>	
ventral and dorsal edges.	
26, 27. Two views of an unusually wide left valve.	
<ol> <li>A similar left valve having a well developed border along the anterior edge.</li> </ol>	
29. Interior of another left valve like Fig. 28.	
Figs. 30-33. Cythere plebeia var. capax n. var	103
30. Left valve of this variety, showing relatively shorter form and finer surface punctation that distinguishes it from the	
typical variety of the species. Plum Point.  31. 32. Two right valves. Plum Point.	
31, 32. Two right valves. Film Foint.  33. Interior of another right valve. Plum Point.	
OUT AMOUNTS OF MENOMENT AND	

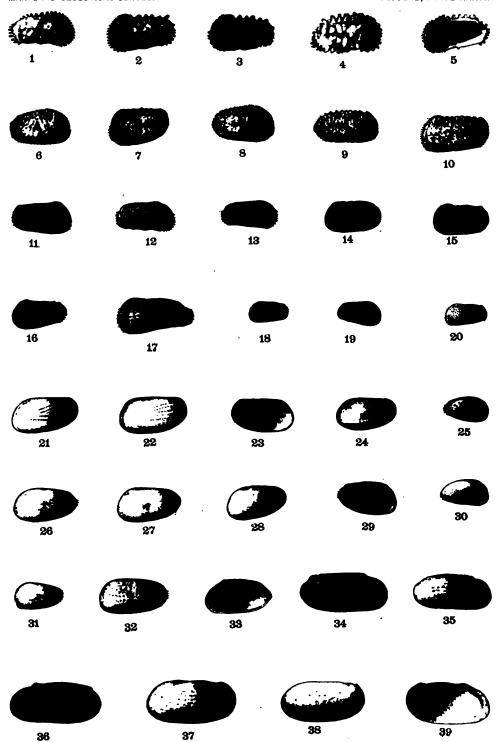
The figures on this plate are all magnified 20 diameters and the specimens are all from the Calvert formation at Plum Point, Md.

ARTHROPODA—OSTRACODA.

### PLATE XXXVI.

•	PAGE
Figs. 1-5. CYTHERE EXANTHEMATA n. sp	117
<ol> <li>2, 3. Left valves of two older individuals, showing the usual characters.</li> <li>4. Largest right valve seen.</li> </ol>	
5. Interior of right valve.	
Figs. 6-8. Cythere evax n. sp	119
Figs. 9, 10. CYTHERE EVAX VAR. OBLONGATA n. var	119
Figs. 11-15. Cythere Martini n. sp	112
14. Left side of an entire carapace, tilted slightly so as to show the dorsum of the opposite valve.	
<ol> <li>Left valve of a variety differing from the typical form of the species in the surface ornament and in being a little shorter.</li> </ol>	
Fig. 16. CYTHERE DORSICORNIS n. sp	
Fig. 17. CYTHERE PRODUCTA n. sp	115
Figs. 18-20. CYTHERE MICULA n. sp	116
Figs. 21-23. CYTHERE NITIDULA n. sp	107
23. The interior of a third left valve showing that the anterior tooth of the hinge is very faintly developed in this species.  Only a tooth socket is distinguishable at the posterior extremity.	
Figs. 24, 25. Cythere nitidula var. calvertensis n. var	
Figs. 26-33. CYTHERE PORCELLA n. sp	106
28. Another left valve differing slightly in shape and probably somewhat macerated. 29. Inner side of fourth left valve.	
<ul> <li>30. A right valve.</li> <li>31. A left valve somewhat doubtfully referred to this species and possibly indicating a distinguishable variety.</li> <li>32. A more ovate left valve that also might be distinguished.</li> </ul>	
33. Interior of a right valve of the normal form.  Figs. 34-39. CYTHERE BURNSI n. sp	

The figures on this plate are all magnified 20 diameters and the specimens are all from the Calvert formation at Plum Point, Md.

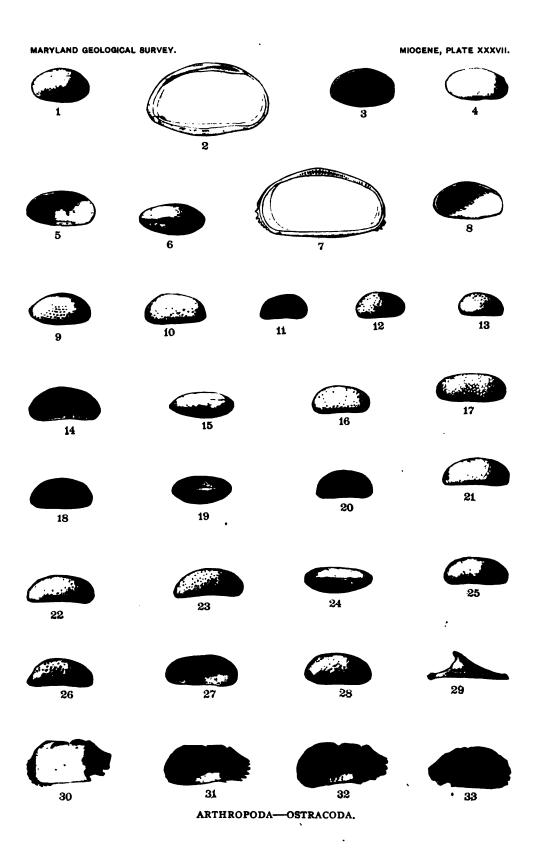


ARTHROPODA—OSTRACODA.

#### PLATE XXXVII.

<ul> <li>Figs. 1-8. Cytheridea subovata n. sp</li></ul>	PAGE 124
Fig. 9. CYTHERIDEA (?) CHESAPEAKENSIS B. Sp	125
Figs. 10-16. CYTHERIDEIS ASHERMANI n. sp	126
Fig. 17. Cytherideis cylindrica n. sp	126
Figs. 18-20. CYTHERIDEIS SEMICIRCULARIS n. sp	
Figs. 21-27. CYTHERIDEIS LONGULA n. sp.  21-23. Three right valves showing unimportant variations in outline and surface ornament.  24. Ventral edge of an entire carapace.  25. A left valve.  26. A right valve, doubtfully referred to this species.  27. Interior of left valve of typical form. The pits on the surface of this valve are about as in figure 22 but more distinctly impressed.	
Fig. 28. Cytherideis sub-Equalis n. sp	
Figs. 29-33. CYTHEREIS CORNUTA VAR. AMERICANA n. VAR.  29. Dorsal view of a left valve.  C0-32. Three left valves showing the extremes of variation observed in the Maryland specimens.  33. A right valve.	

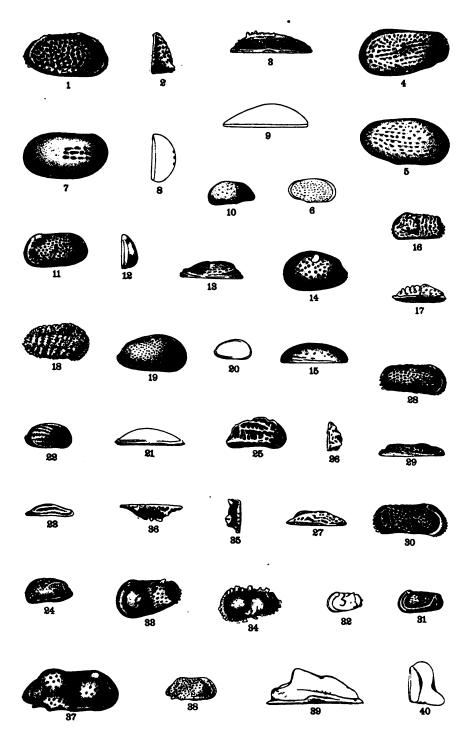
Excepting Figs. 2 and 7, all the figures on this plate are magnified 20 diameters. The specimens are all from the Calvert formation at Plum Point, Md.



#### PLATE XXXVIII.

	PAGE
Figs. 1-3. CYTHERE PLANIBASALIS n. sp.  1. Lateral view of a right valve. James River, Virginia. 2. Posterior view of the same. James River, Virginia. 3. Ventral view of the same. James River, Virginia.	99
Figs. 4-6. Cythere tuomeyi n. sp	105
<ol> <li>Lateral view of a left valve × 25 ½. Yorktown, Va.</li> <li>6. Lateral views of a right valve × 25 ½ and × 13 ½, apparently of the same species. Peach Blossom Creek, 3 miles southwest of Easton.</li> </ol>	•
Figs. 7-9. CYTHERE PAUCIPUNCTATA n. sp	105
Fig. 10. Cythere (?) Shattucki n. sp	121
Figs. 11-13. Cythere calverti n. sp	100
Figs. 14-15. CYTHERE SUBOVALIS n. sp	111
Figs. 16, 17. CYTHERE BUGIPUNCTATA n. sp	118
Fig. 18. CYTHERE SPINIPLICATA n. sp	<b>12</b> 0
Figs. 19-21. CYTHERE FRANCISCA n. sp	
TV 00 04 C	100
Figs. 22-24. CYTHERE PUNCTISTRIATA n. sp	
Figs. 25-27. CYTHERE VAUGHANI n. sp	
Figs. 28-30. CYTHERE PRODUCTA n. sp. (see also Plate XXXVI)	
Fig. 31. CYTHERE LIENENKLAUSI n. sp	114
Figs. 32, 33. Cythere dobsicoenis bicoenis n. sp. et var	
Figs. 34-36. Cythereis alaris n. sp	123 ,
Figs. 37-40. CYTHEROPTERON NODOSUM n. sp	
× 13%. James River, Virginia.	-

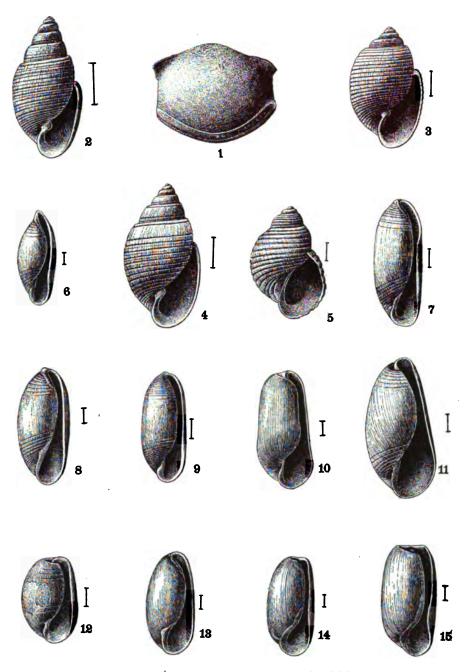
Unless stated otherwise all the figures on this plate are magnified 131/2 times.



ARTHROPODA—OSTRACODA.

#### PLATE XXXIX.

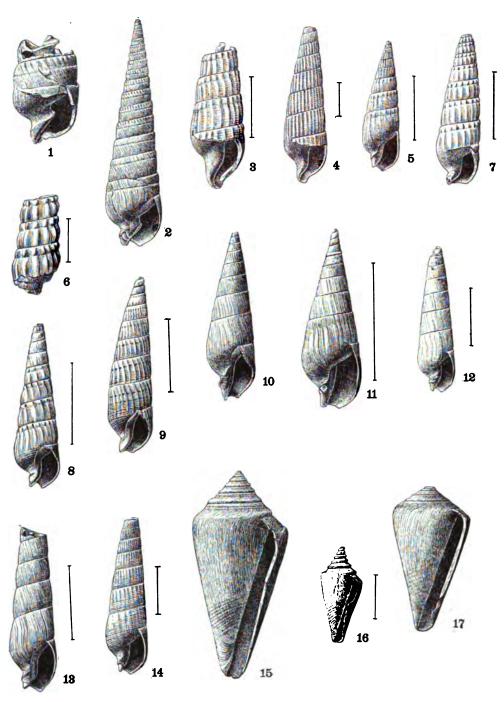
	PAGE
Fig. 1. NAUTILUS Sp	
Fig. 2. ACTÆON OVOIDES Conrad	131
Fig. 3. ACTÆON PUSILLUS (Forbes)	132
Fig. 4. ACTÆON SHILOHENSIS Whitfield	132
Fig. 5. ACTÆON CALVERTENSIS n. sp	133
Fig. 6. Volvula iota (Conrad) var. marylandica n. var	134
Fig. 7. Volvula iota (Conrad) var. diminuta n. var	134
Fig. 8. Volvula iota (Conrad) var. calverta n. var	135
Fig. 9. Volvula iota (Conrad) var. patuxentia n. var	135
Fig. 10. RETUSA (CYLICHNINA) MARYLANDICA n. sp	135
Fig. 11. Retusa (Cylichnina) conulus (Deshayes)	136
Fig. 12. Retusa (Cylichnina) subspissa (Conrad)	136
Fig. 13. CYLICHNA (?) GREENSBOBOËNSIS n. sp	137
Figs. 14, 15. Cylichna calvertensis n. sp	137



MOLLUSCA-CEPHALOPODA AND GASTROPODA.

#### PLATE XL.

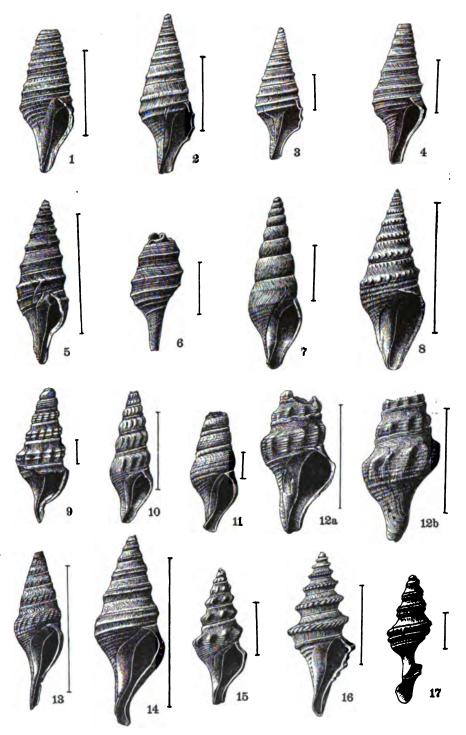
121112	
Figs. 1, 2. TEREBRA UNILINEATA Conrad	138
Figs. 3, 4. Terebra (Acus) curvilineata Dall var. whitfield in. var.139, 3. View of one of the types of <i>T. curvilineata</i> Whitfield. Jericho, New Jersey. U. S. National Museum. 4. Ventral view. Plum Point.	140
Fig. 5. Terebra (Acus) curvilineata Dall var. dalli n. var139, 5. Ventral view. Greensboro.	140
Figs. 6, 7. Terebra (Acus) Curvilineata Dall var. Calvertensis n.  var	141
Fig. 8. Terebra (Acus) curvilirata Conrad	141
Fig. 9. Terebra (Acus) Sincera Dall	142
Fig. 10. Terebra (Hastula) SIMPLEX Conrad	143
Fig. 11. Terebra (Hastula) SIMPLEX Conrad var. Sublibata Conrad 11. Ventral view. St. Mary's River.	144
Figs. 12, 13. Terebra (Hastula) Inornata Whitfield	144
Fig. 14. TEBEBRA (HASTULA) PATUXENTIA n. sp	145
Figs. 15-17. Conus diluvianus Green	145



MOLLUSCA—GASTROPODA.

#### PLATE XLI.

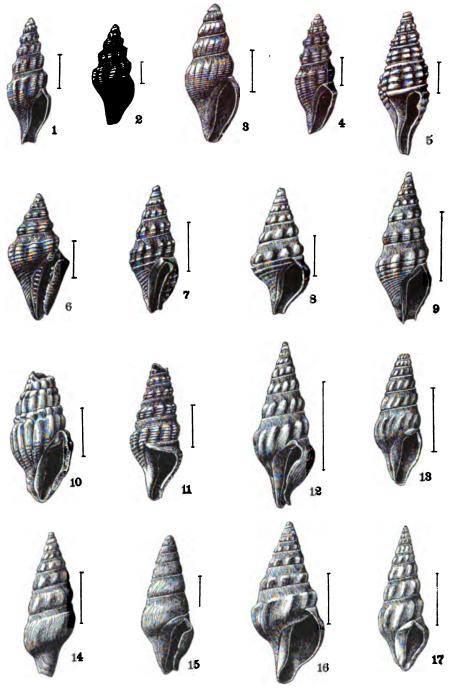
	PAGE
Fig. 1. PLEUROTOMA (HEMIPLEUROTOMA) ALBIDA Perry	146
Figs. 2, 3. PLEUBOTOMA (HEMIPLEUBOTOMA) COMMUNIS Conrad 2. Ventral view of adult individual. Cove Point. 3. Ventral view of young individual. Same locality.	147
Figs. 4-6. PLEUBOTOMA (HEMIPLEUBOTOMA) COMMUNIS Conrad var. PROTOCOMMUNIS n. var.  4. Ventral view. Plum Point. Cornell University.  5. Ventral view of larger specimen. Same locality.  6. Dorsal view of young individual. Same locality.	
Fig. 7. PLEUROTOMA (HEMIPLEUROTOMA) CHOPTANKENSIS n. sp	148
Figs. 8, 9. PLEUBOTOMA (HEMIPLEUBOTOMA) BELLACRENATA Conrad 8. Ventral view of adult individual. Plum Point. 9. Ventral view of young. Same locality. Cornell University.	148
Figs. 10, 11. PLEUROTOMA (HEMIPLEUROTOMA) CALVERTENSIS n. sp 10. Ventral view. Plum Point. 11. Ventral view showing the other extreme in sculpture. Same locality. U. S. National Museum.	
Figs. 12a, 12b. Subcula Bugata Conrad	149
Fig. 13. Surcula Marylandica Conrad	150
Fig. 14. Surcula biscatenaria Conrad	151
Fig. 15. Surcula engonata Conrad	151
Fig. 16. Surcula rotifera Conrad	152
Fig. 17. Subcula mabiana n. sp	152



 ${\tt MOLLUSCA--GASTROPODA.}$ 

#### PLATE XLII.

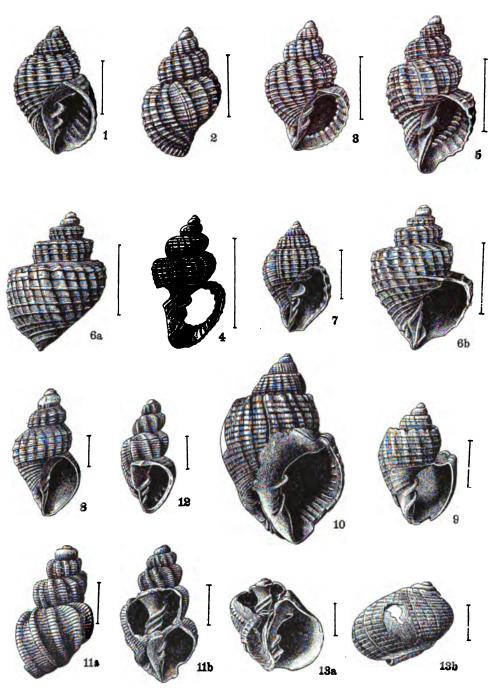
Figs. 1, 2. Mangilla Parva (Conrad)	PAGE 153
Fig. 3. Mangilia parvoidea n. sp	154
Fig. 4. Mangilia cornelliana n. sp	154
Fig. 5. Mangilia patuxentia n. sp	154
Fig. 6. Mangilla (Glyphostoma) obtusa n. sp	155
Fig. 7. Drillia incilifera (Conrad)	155
Fig. 8. Drillia incilifera var. angulata n. var	156
Fig. 9. Drillia incilifera var. distans (Conrad)	156
Fig. 10. Drillia whitfield n. sp	157
Fig. 11. Drillia calvertensis n. sp	158
Figs. 12, 13. Drilla Limatula Conrad	158
Figs. 14, 15. Drillia Limatula var. dissimilis Conrad	159
Fig. 16. Drillia Limatula var. Pyramidalis n. var	160
Fig. 17. Drillia pseudeburnea (Whitfield)	160



MOLLUSCA—GASTROPODA.

#### PLATE XLIII.

	PAGE
Figs. 1-3. Cancellaria alternata Conrad	
Fig. 4. Cancellaria engonata Conrad	162
Fig. 5. Cancellaria Lunata Conrad	163
Figs. 6a, 6b. Cancellabia prunicola n. sp	164
Fig. 7. Cancellaria reficulatories Conrad	164
Fig. 8. Cancellaria (Admete) marylandica n. sp	165
Fig. 9. Cancellaria (Trigonostoma) perspectiva Conrad	
Fig. 10. Cancellaria (Trigonostoma) biplicifera Conrad	166
Figs. 11a, 11b. Cancellaria (Sveltia) patuxentia n. sp	167
Fig. 12. Cancellaria (Sveltia) calvertensis n. sp	167
Figs. 13a, 13b. Cancellabia (Cancellabiella) nebitoidea n. sp	168

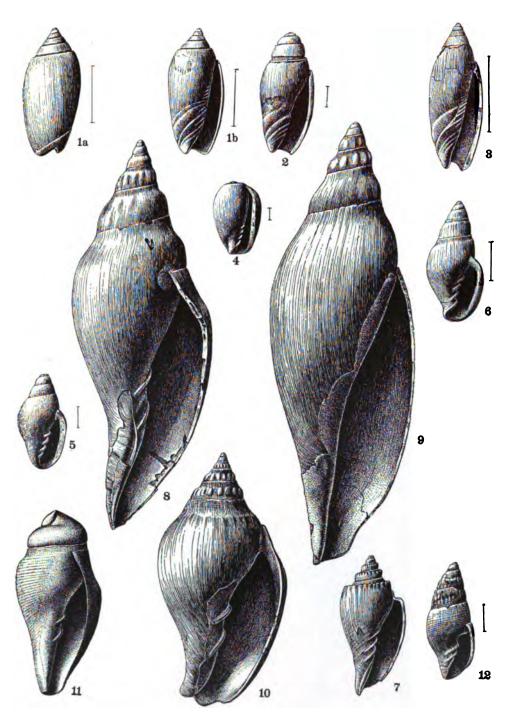


MOLLUSCA—GASTROPODA.

#### PLATE XLIV.

•

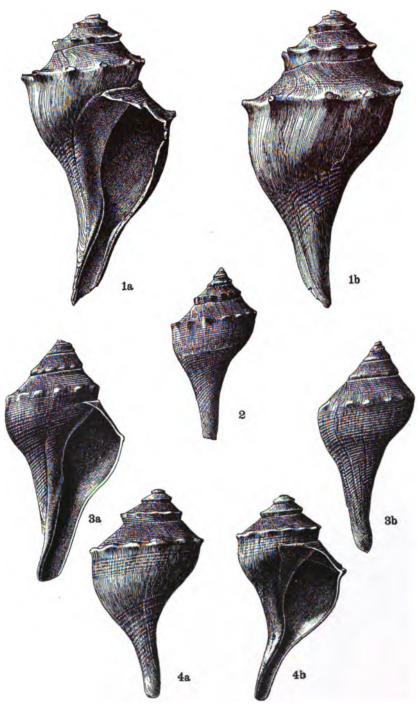
PLATE XLIV.	
Figs. 1a, 1b. Oliva litterata Lamarck	169
<ul><li>1a. Dorsal view. Church Hill.</li><li>1b. Ventral view of the same specimen.</li></ul>	
Figs. 2, 3. OLIVA HARRISI n. sp	
Museum.  3. Ventral view of larger specimen. Same locality.	
Fig. 4. Marginella minuta Pfeiffer	170
Fig. 5. Marginella denticulata Conrad	171
Fig. 6. Marginella calvertensis n. sp 6. Ventral view. Plum Point. U. S. National Museum.	172
Fig. 7. Scaphella solitaria (Conrad)	173
Figs. 8, 9. Scaphella (Aurinia) mutabilis (Conrad)	174
Fig. 10. Scaphella (Aurinia) typus (Conrad)	175
Fig. 11. SCAPHELLA (AURINIA) OBTUSA (Emmons)	175
Fig. 12. MITRA MARIANA n. sp	



MOLLUSCA—GASTROPODA.

#### PLATE XLV.

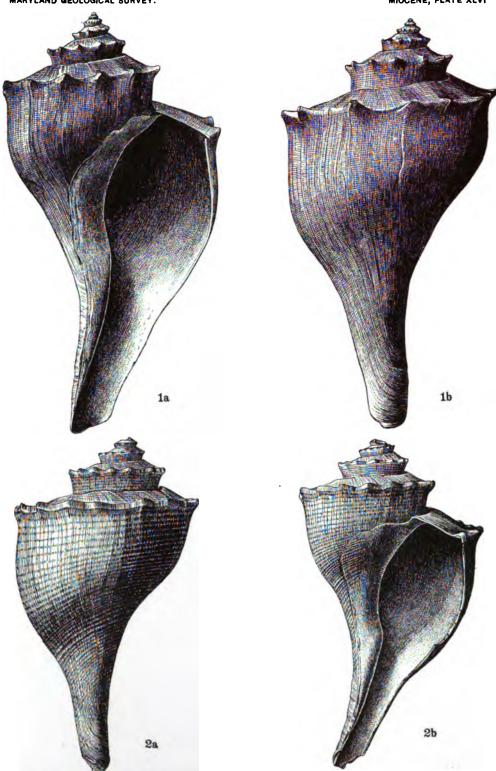
	PAGE
Figs. 1a, 1b. Fulgar spiniger (Conrad) var	177
1a. Ventral view. Jones Wharf.	
1b. Dorsal view of the same specimen.	
Figs. 2, 3a, 3b. Fulgar fusiforme Conrad	178
2. Dorsal view. St. Mary's River.	
3a. Ventral view. Cove Point.	
3b. Dorsal view of another specimen. Same locality.	
Figs. 4a, 4b. Fulgar tuberculatum Conrad	179
4a. Dorsal view. St. Mary's River.	
4b. Ventral view of the same specimen.	



MOLLUSCA-GASTROPODA.

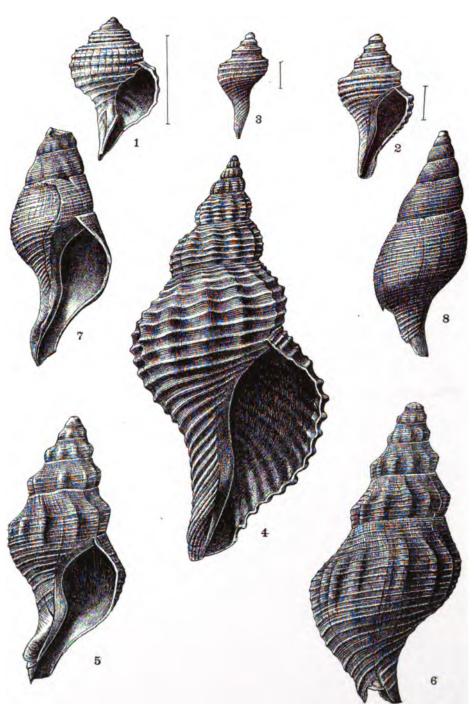
#### PLATE XLVI.

Figs. 1a, 1b. Fulgar coronatum Conrad	180
1a. Ventral view. St. Mary's River.	
1b. Dorsal view of the same specimen.	
Figs. 2a, 2b. Fulgar coronatum var. rugosum Conrad	181
2a. Dorsal view. St. Mary's River.	
2b. Ventral view of the same specimen.	



# PLATE XLVII.

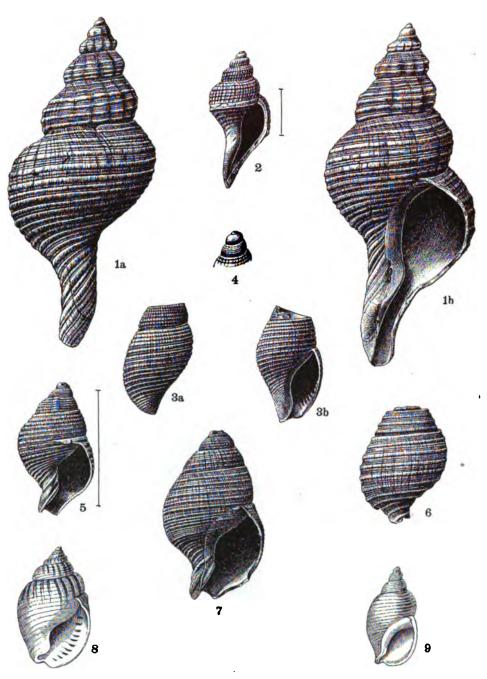
	PAGE
Fig. 1. LIROSOMA SULCOSA Conrad	183
1. Ventral view. St. Mary's River.	
Figs. 2, 3. Chrysodomus patuxentensis n. sp	184
2. Ventral view. Jones Wharf.	
3. Dorsal view. Plum Point.	
o. Dorsai view. 11um 10iit.	
Fig. 4. Buccinofusus parilis Conrad	184
4. Ventral view. St. Mary's River.	
·	
Figs. 5, 6. Siphonalia devexa (Conrad)	185
5. Ventral view. Plum Point.	
6. Dorsal view of another specimen. Same locality.	
Figs. 7, 8. Siphonalia migrans (Conrad)	186
7. Ventral view. Plum Point.	
8. Dorsal view of another specimen. Same locality.	



MCLLUSCA-GASTROPODA.

#### PLATE XLVIII.

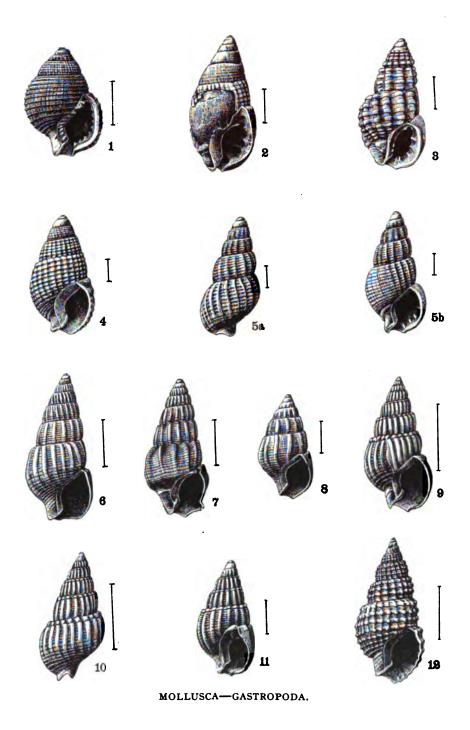
PAGI
Fibs. 1a, 1b. Siphonalia marylandica n. sp
1a. Dorsal view. St. Mary's River.
1b. Ventral view of the same specimen.
Fig. 2. Siphonalia (?) calvertana n. sp
2. Specimen from Plum Point. U. S. National Museum.
Figs. 3a, 3b, 4. Pisania (Celatoconus) protractus (Conrad) 188
3a. Dorsal view. Plum Point.
3b. Ventral view of the same specimen.
4. Tip of a specimen from the same locality. $\times$ 4
Fig. 5. Ptychosalpinx altilis (Conrad)
5. Ventral view. St. Mary's River.
Fig. 6. PTYCHOSALPINX MULTIRUGATA Conrad
6. Dorsal view. Plum Point. U. S. National Museum.
Fig. 7. PTYCHOSALPINX LIENOSA Conrad
7. Ventral view. Plum Point.
Figs. 8, 9. Ilyanassa (?) (Paranassa) porcina (Say)
8. Ventral view of type-specimen of Buccinum porcinum. St. Mary's
River (?). British Museum. (After Say.)
9. Ventral view of type-specimen of Buccinum aratum. St. Mary's
River (?). British Museum. (After Say.)



MOLLUSCA—GASTROPODA.

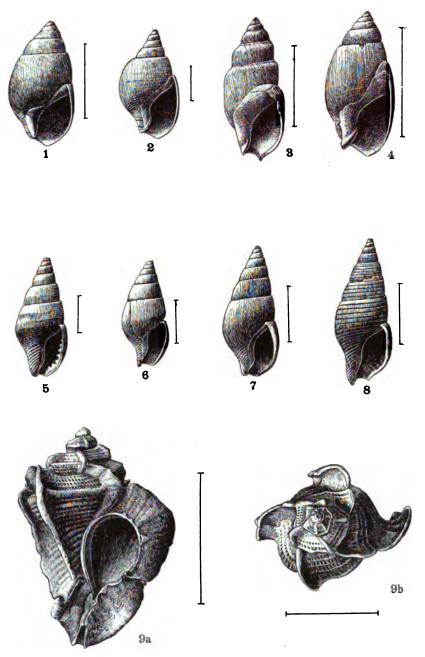
#### PLATE XLIX.

	PAGE
Fig. 1. Nassa calvertensis n. sp	191
1. Ventral view. Plum Point. U. S. National Museum.	
Fig. 2. Nassa gubernatoria n. sp	192
2. Ventral view. Governor Run.	
Figs. 3, 4. Nassa trivittatoides (Whitfield)	192
3. Ventral view. Jones Wharf.	
4. Ventral view of another specimen. Same locality.	
Figs. 5a, 5b. Nassa greensboroënsis n. sp	194
5a. Dorsal view. Greensboro.	
5b. Ventral view of the same specimen.	
Figs. 6-8. Nassa mabylandica n. sp	194
6. Ventral view. St. Mary's River.	
7. Ventral view of another specimen. Same locality.	
8. Ventral view of less elongate individual. Same locality.	
Figs. 9, 10. Nassa peralta Conrad	195
9. Ventral view. St. Mary's River.	
10. Dorsal view of another specimen. Same locality.	
Fig. 11. Nassa peraltoides Conrad	195
11. Ventral view. Jones Wharf.	
Fig. 12. Nassa trivittata Say	196
19 Ventral view Possibly from St. Mary's River	



## PLATE L.

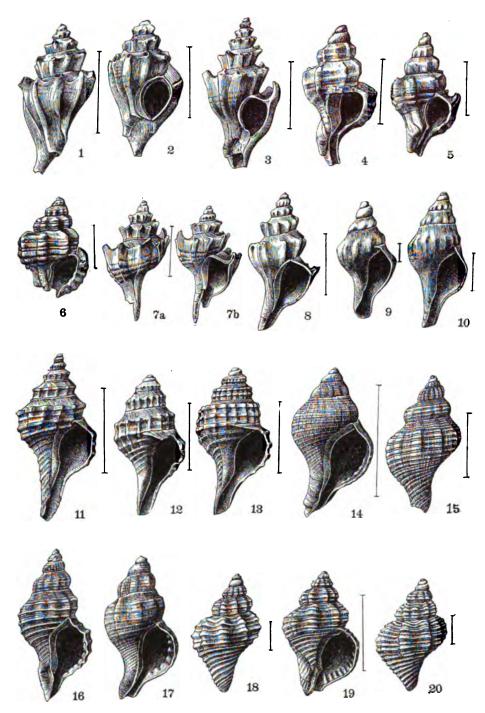
	PAGE
Figs. 1, 2. Bulliopsis integra Conrad	197
1. Ventral view of adult individual. St. Mary's River.	
2. Ventral view of young individual. Same locality.	
Fig. 3. Bulliopsis Quadrata Conrad	198
3. Ventral view. St. Mary's River.	
Fig. 4. Bulliopsis marylandica Conrad	198
4. Ventral view. Cove Point.	
Figs. 5-7. Columbella (Astyris) communis (Conrad)	199
5. Ventral view. Cove Point.	
6. Ventral view. St. Mary's River.	
7. Ventral view of another specimen. Same locality.	
Fig. 8. Columbella calvertensis n. sp	200
8. Ventral view. Plum Point. U. S. National Museum.	
Figs. 9a, 9b. Murex (Pteborhytis) conradi Dall	200
9a. Ventral view. St. Mary's River. (After Dall.) U. S. National	
Museum.	
9b. Apical view of the same specimen. (After Dall.)	



MOLLUSCA-GASTROPODA.

# PLATE LI.

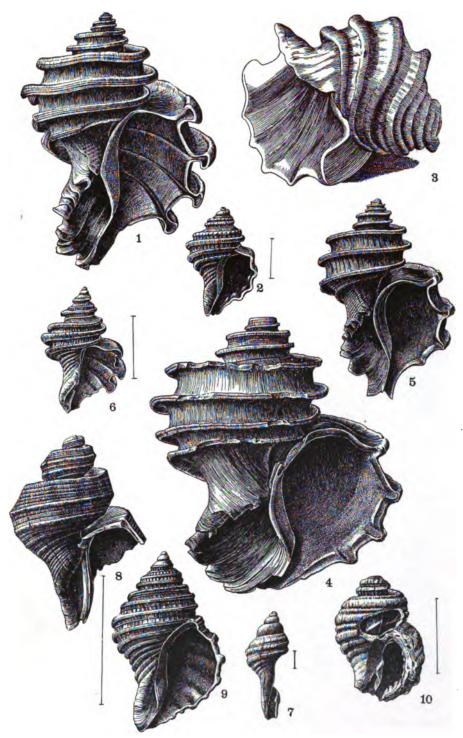
PAGB
Figs. 1-3. Typhis acuticosta Conrad
1. Dorsal view. Cove Point.
2. Ventral view. Same locality.
3. Ventral view. Plum Point. U. S. National Museum.
Figs. 4-6. Muricidea shilohensis (Heilprin)
4. Ventral view. Plum Point. Cornell University.
5. Ventral view of another specimen. Same locality.
6. Ventral view of another specimen. Same locality.
Figs. 7a, 7b. Trophon tetricus Conrad
7a. Dorsal view. St. Mary's River.
7b. Ventral view of same specimen.
Fig. 8. Trophon tetricus var. lævis n. var
8. Ventral view. St. Mary's River.
Figs. 9, 10. Trophon chesapeakeanus n. sp
9. Ventral view of young individual. St. Mary's River.
10. Ventral view of adult. Same locality.
Figs. 11-13. Scalaspira strumosa Conrad
11. Ventral view. Yorktown, Virginia.
12. Ventral view. St. Mary's River.
13. Ventral view. Cove Point.
Figs. 14, 15. Urosalpinx cinereus (Say) ?
14. Ventral view. Cove Point.
15. Dorsal view of another specimen. Same locality.
Figs. 16, 17. Ubosalpink busticus (Conrad)
16. Ventral view. St. Marv's River.
17. Ventral view. Cove Point.
Figs. 18-20. Coralliophila cumberlandiana (Gabb)
18. Dorsal view. St. Mary's River.
19. Ventral view. Same locality.
20. Dorsal view. Same locality.



MOLLUSCA-GASTROPODA.

## PLATE LII.

	PAGE
Figs. 1-3. Ecphora quadricostata (Say)	207
1. Ventral view. St. Mary's River.	
2. Ventral view of young individual. Cove Point.	
3. Specimen from Maryland, after Lister (fide Dillwyn).	
Fig. 4. Ecphora quadricostata var. umbilicata (Wagner)	209
4. Ventral view. Jones Wharf.	
Figs. 5-8. Ecphora tricostata n. sp	209
5. Ventral view. Plum Point. U. S. National Museum.	
6. Ventral view of younger individual. Same locality.	
7. Ventral view of very young individual. Same locality.	
8. Ventral view of aberrant form. Same locality.	
Figs. 9, 10. Ecphora tampaënsis (Dall)	210
9. Ventral view. Church Hill. U. S. National Museum. (After Dall.)	
10 Ventral view Jones Wherf	



MOLLUSCA—GASTROPODA.

#### PLATE LIII.

Figs. 1, 2. Scala sayana Dall	PAGE 212
Fig. 3. Scala Marylandica n. sp	213
Fig. 4. Scala (Opalia) calvebrensis n. sp	213
Fig. 5. Scala (Opalia) reticulata n. sp	214
Fig. 6. Scala (Opalia) prunicola n. sp	214
Fig. 7. Scala (Sthenorhytis) expansa Conrad	215
Fig. 8. Scala (Sthenorhytis) pachypleura Conrad	215
Figs. 9, 10. EULIMA EBOREA Conrad	. 216
Fig. 11. EULIMA LÆVIGATA (H. C. Lea)	217
Fig. 12. EULIMA MIGRANS Conrad	217
Fig. 13. NISO LINEATA CONTAD	218

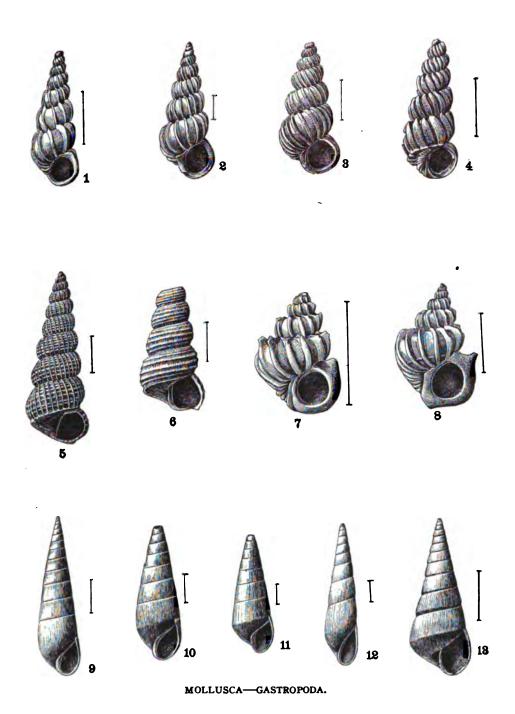
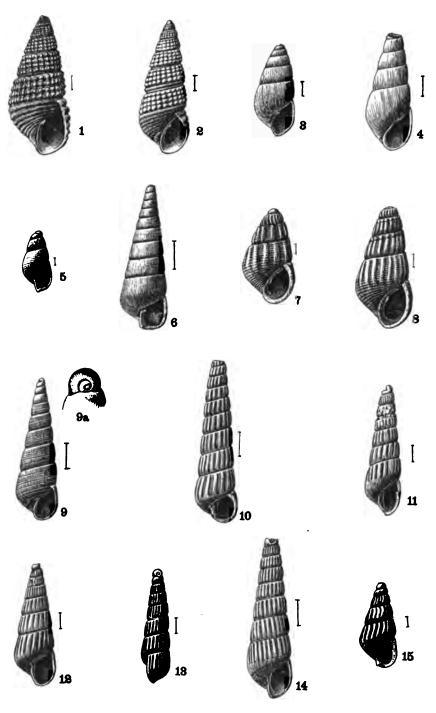


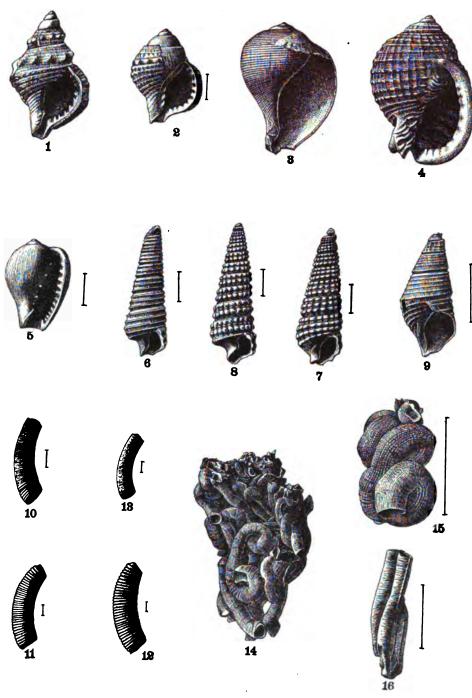
PLATE LIV.	
Fig. 1. Odostomia (Chrysallida) melanoidis (Conrad)	PAGE 220
Fig. 2. Pyramidella (Chrysallida) granulata (H. C. Lea)	
Figs. 3, 4. Odostomia conoidea (Brocchi)	219
Fig. 5. Odostomia (Evalia) mariana n. sp	221
Fig. 6. Odostomia (Syrnola) marylandica n. sp	221
Figs. 7, 8. Odostoma (Pyrgulina) calvertensis n. sp	221
Figs. 9, 9a. EULIMELLA (ANISOCYCLA) MARYLANDICA n. sp	222
Fig. 10. Turbonilla (Chemnitzia) nivia Stimpson	222
Figs. 11, 12. Turbonilla (Chemnitzia) nivea Stimpson var	223
Figs. 13, 14. Turbonilla (Pyrgiscus) interrupta (Totten)	224
Fig. 15. Turbonilla (Tragula) gubernatoria n. sp	224



MOLLUSCA-GASTROPODA.

## PLATE LV.

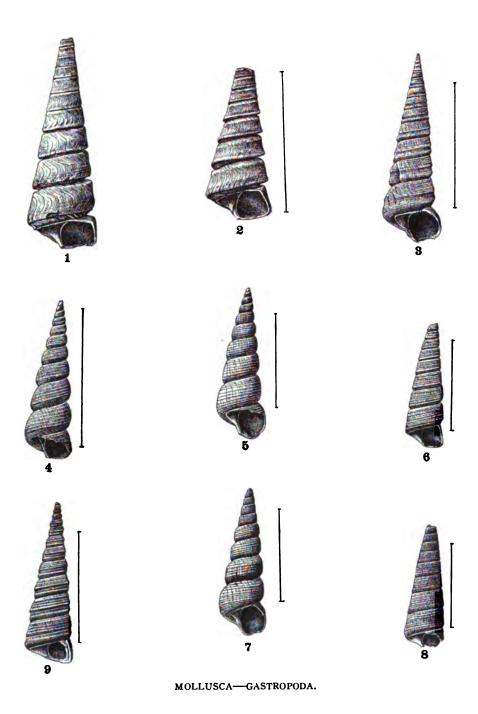
	PAGE
Figs. 1, 2. Tritonium centrosum (Conrad)	225
2. Ventral view of younger individual. Same locality.	
Fig. 3. Pyrula harrisi n. sp	226
Fig. 4. Cassis cælata Conrad	226
4. Ventral view. St. Mary's River.	
Fig. 5. Erato perexigua (Conrad)	227
Fig. 6. Seila adamsii (H. C. Lea)	228
Fig. 7. Cupratropore descriptions p. en	990
Fig. 7. Cerithiopsis calvertensis n. sp	<i>6</i> 29
Fig. 8. Cerithiopsis subulata (Montagu)	230
8. Ventral view. Greensboro.	200
Fig. 9. Goniobasis marylandica n. sp	230
9. Ventral view. St. Mary's River.	
Fig. 10. Cæcum calvertense n. sp	231
10. Specimen from Church Hill.	
Figs. 11, 12. Cæcum patukentium n. sp	231
11. Specimen from Greensboro.	
12. Specimen from Governor Run (lower bed).	
Fig. 13. CÆCUM GREENSBOROËNSE n. sp.	231
13. Specimen from Greensboro.	
Figs. 14, 15. Vermetus graniferus (Say)	232
14. Specimen from Church Hill.	
15. Specimen from Jones Wharf.	
Fig. 16. Vermetus virginicus (Conrad)	232
16. Specimen from Plum Point	



MOLLUSCA--GASTROPODA.

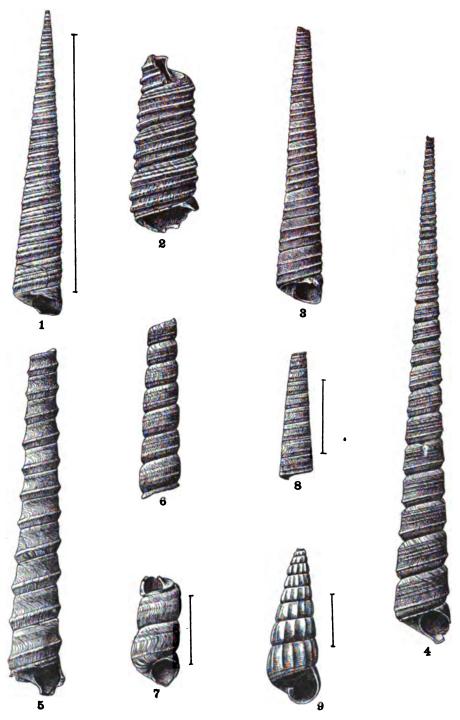
# PLATE LVI.

1	PAGE
Figs. 1, 2. Turritella indenta Confad	233
1. Ventral view. 3 miles south of Chesapeake Beach.	
2. Ventral view. Plum Point.	
Fig. 3. Turritella Æquistriata Conrad	234
3. Ventral view. Church Hill.	
Figs. 4-9. Turritella plebeia Say	234
4. Ventral view of typical form. St. Mary's River.	
5. Ventral view of typical form. Jones Wharf.	
6. Specimen from Jones Wharf showing var. A.	
7. Specimen from Plum Point showing var. B.	
8. Specimen from same locality showing var. A.	
9. Specimen of var. octonaria. Dover Bridge.	



# PLATE LVII.

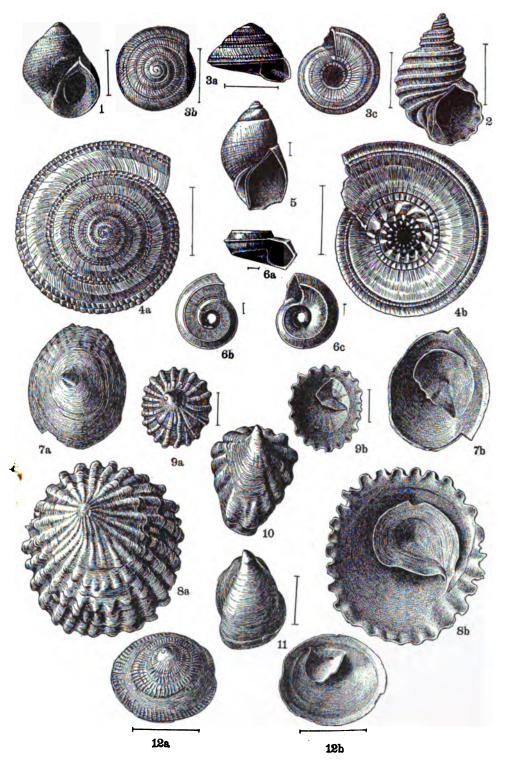
	PAGE
Fig. 1. Turritella variabilis Conrad	236
1. Specimen from St. Mary's River.	
Fig. 2. Turritella variabilis var. alticostata Confad	237
2. Specimen from Dover Bridge.	
Figs. 3, 4. Turritella variabilis var. cumberlandia Conrad	237
3. Specimen from Plum Point.	
4. Another specimen from the same locality.	
Fig. 5. Turritella variabilis var. exaltata Confad	238
5. Specimen from Plum Point.	
Figs. 6-8. Turritella vabiabilis var	239
6. Specimen of var. B. Plum Point.	
7. Another specimen of the same. Same locality.	
8. Specimen of var. C. Plum Point.	
Fig. 9. Tachyrhynchus perlaqueatus (Conrad)	239
9. Ventral view of type specimen. "Calvert Cliffs." Acad. Nat. Sci.,	



MOLLUSCA-GASTROPODA,

#### PLATE LVIII.

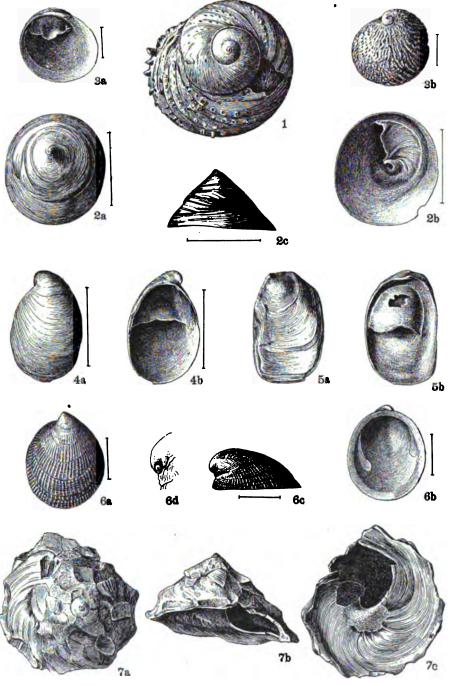
	PAGE
Fig. 1. LITTORINA IBBORATA (Say)	<b>24</b> 0
1. Ventral view. Choptank River. U. S. National Museum.	
Fig. 2. Fossarus (Isipis) dalli (Whitfield)	240
Figs. 3a-3c. Solarium Trilineatum Conrad	241
Figs. 4a, 4b. Solabium amphiterum Dall	
Fig. 5. RISSOA (ONOBA) MARYLANDICA n. sp	243
Figs. 6a-Gc. ADEORBIS SUPRANITIDUS S. Wood	
Figs. 7a, 7b. CBUCIBULUM COSTATUM (Say)	244
Figs. 8-10. CRUCIBULUM COSTATUM VAR. PILEOLUM (H. C. Lea)	245
Fig. 11. CRUCIBULUM CONSTRICTUM Conrad	246
Figs. 12a, 12b. CRUCIBULUM MULTILINEATUM Conrad	246



MOLLUSCA-GASTROPODA.

#### PLATE LIX.

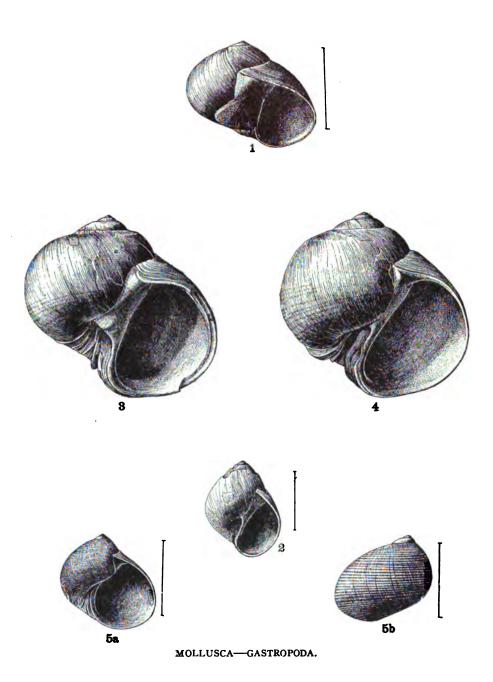
Fig. 1. Calyptræa aperta (Solander)	247
Figs. 2a-2c. CALYPTRÆA CENTRALIS (Conrad)	248
Figs. 3a, 3b. Calyptræa greensboroënsis n. sp	248
Figs. 4a, 4b. Crepidula fornicata (Linné)	249
Figs. 5a, 5b. CREPIDULA PLANA Say	250
Figs. 6a-6d. AMALTHEA MARYLANDICA n. sp	251
Figs. 7a-7c. XENOPHORA CONCHYLIOPHORA (Born)	251



MOLLUSCA-GASTROPODA.

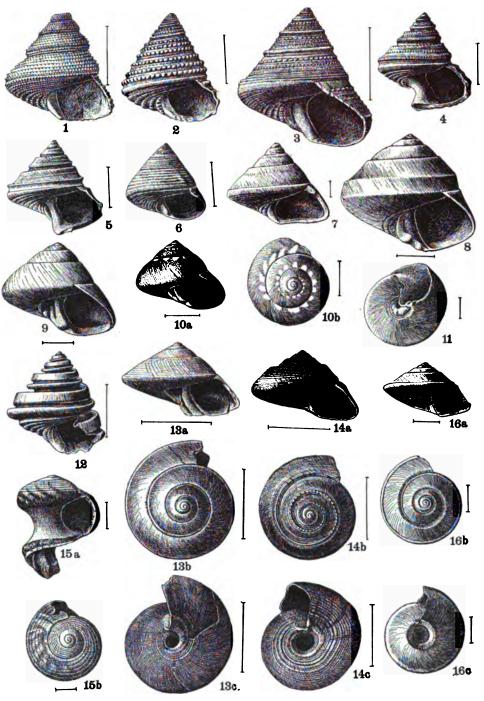
# PLATE LX.

	PAGE
Fig. 1. Polynices (Neverita) duplicatus (Say)	252
1. Ventral view. St. Mary's River.	
Fig. 2. Polynices (Lunatia) hemicryptus (Gabb)	252
2. Ventral view. Jones Wharf.	
Figs. 3, 4. Polynices (Lunatia) heros (Say)	253
3. Ventral view. Jones Wharf.	
4. Ventral view. St. Mary's River.	
Figs. 5a, 5b. Sigaretus fragilis Conrad	255
5a. Ventral view. Plum Point.	
5b. Dorsal view of the same specimen.	



#### PLATE LXI.

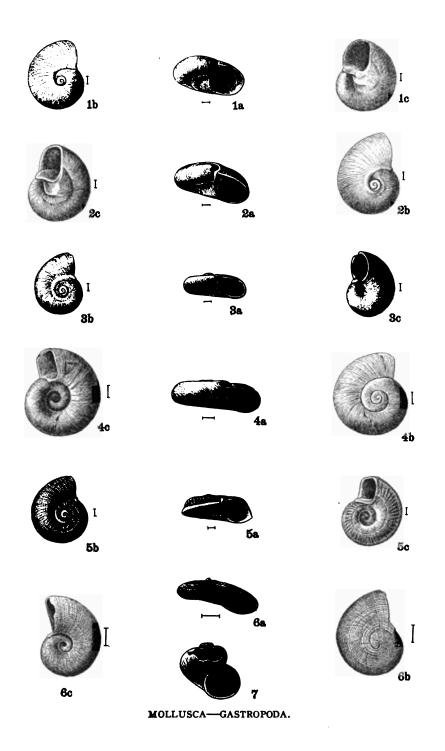
	PAGE
1. Ventral view. Miocene of Maryland. Wagner Free Institute of Science.	
Figs. 2, 3. CALLIOSTOMA PHILANTHROPUS (Conrad)	
Fig. 4. Calliostoma Philanthropus var	257
Fig. 5. Calliostoma virginicum (Conrad)	
Fig. 6. Calliostoma distans (Conrad)	258
Fig. 7. Calliostoma eboreum (Wagner)	259
Fig. 8. Calliostoma wagneri Dall	
Figs. 9-11. Calliostoma aphelium Dall	
Fig. 12. Calliostoma Peralveatum (Conrad)	261
Figs. 13a-13c. Calliostoma Humile (Conrad)	261
Figs. 14a-14c. Calliostoma reclusum (Conrad)	262
Figs. 15a, 15b. Calliostoma Marylandicum n. sp	263
Figs. 16a-16c. Calliostoma calvertanum n. sp	263



MOLLUSCA—GASTROPODA.

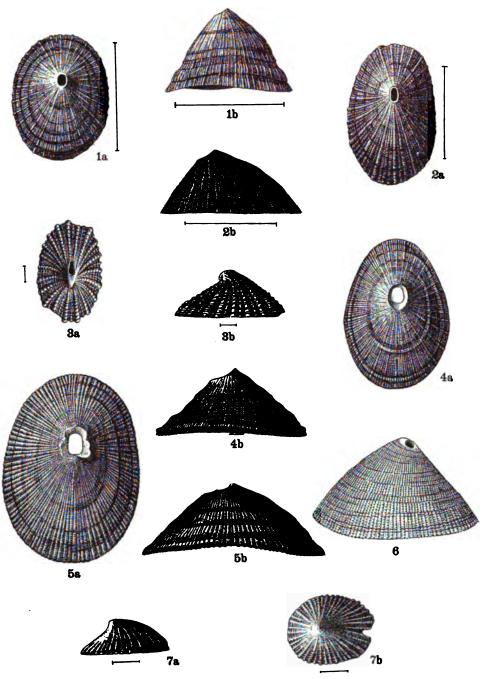
# PLATE LXII.

	PAGE
Figs. 1, 2. Teinostoma nanum (Lea)	263
1a. Profile of specimen from Cove Point.	
1b. Same specimen as seen from above.	
1c. Same specimen as seen from below.	
2a. Profile of specimen from St. Mary's River.	
2b. Same specimen as seen from above.	
2c. Same specimen as seen from below.	
Figs. 3a-3c. Teinostoma calvertense n. sp	264
3a. Profile of specimen from Plum Point.	
3b. Upper view of the same specimen.	
3c. Lower view of the same specimen.	
Figs. 4a-4c. Teinostoma Liparum (H. C. Lea)	264
4a. Profile of specimen from St. Mary's River.	
4b. Upper view of the same specimen.	
4c. Lower view of the same specimen.	
Figs. 5a-5c. Teinostoma greensboroënse n. sp	265
5a. Profile of specimen from Greensboro.	
5b. Upper view of the same specimen.	
5c. Lower view of the same specimen.	
Figs. 6a-6c. Cochliolepis striata Dall	265
6a. Profile of specimen from Plum Point. U. S. National Museum.	
6b. Upper view of the same specimen.	
6c. Lower view of the same specimen.	
Fig. 7. Molleria minuscula Dall	266
7. View of type specimen. St. Mary's River. U. S. National Museum.	



#### PLATE LYIII

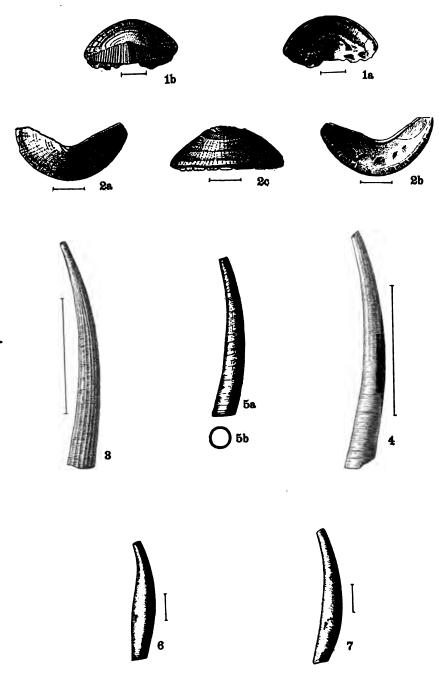
Figs. 1a, 1b. Fissuridea alticosta (Conrad)	FLATE DAIII.	
1a. Dorsal view. St. Mary's River. Wagner Free Institute of Science.  1b. Lateral view of the same specimen.  Figs. 2, 3. Fissuridea griscomi (Conrad)	The to the Thomas (County)	
Science.  1b. Lateral view of the same specimen.  Figs. 2, 3. Fissuridea griscomi (Conrad)	Figs. 1a, 1b. Fissuridea alticosta (Conrad)	266
Figs. 2, 3. Fissuridea griscomi (Conrad)	The state of the s	
2a. Dorsal view. Church Hill.  2b. Lateral view of the same specimen.  3a. Dorsal view of young individual. Same locality.  3b. Lateral view of the same specimen.  Figs. 4a, 4b. Fissuridea Marylandica (Conrad)	1b. Lateral view of the same specimen.	
2b. Lateral view of the same specimen.  3a. Dorsal view of young individual. Same locality.  3b. Lateral view of the same specimen.  Figs. 4a, 4b. Fissuridea Marylandica (Conrad)	Figs. 2, 3. Fissuridea griscomi (Conrad)	267
3a. Dorsal view of young individual. Same locality. 3b. Lateral view of the same specimen.  Figs. 4a, 4b. Fissuridea Marylandica (Conrad)	2a. Dorsal view. Church Hill.	
3a. Dorsal view of young individual. Same locality. 3b. Lateral view of the same specimen.  Figs. 4a, 4b. Fissuridea Marylandica (Conrad)	2b. Lateral view of the same specimen.	
3b. Lateral view of the same specimen.  Figs. 4a, 4b. Fissuridea Marylandica (Conrad)		
Figs. 4a, 4b. Fissuridea Marylandica (Conrad)	· -	
4a. Dorsal view. Plum Point. 4b. Lateral view of the same specimen.  Figs. 5a, 5b. Fissuridea nassula (Conrad)	on saccial view of the same specimen.	
4b. Lateral view of the same specimen.  Figs. 5a, 5b. Fissuridea nassula (Conrad)		268
Figs. 5a, 5b. Fissuridea Nassula (Conrad)	4a. Dorsal view. Plum Point.	
5a. Dorsal view. Jones Wharf. 5b. Lateral view of the same specimen.  Fig. 6. Fissuridea redimicula (Say)	4b. Lateral view of the same specimen.	
5b. Lateral view of the same specimen.  Fig. 6. Fissuridea redimicula (Say)	Figs. 5a, 5b. Fissuridea nassula (Conrad)	268
Fig. 6. Fissuridea redimicula (Say)	5a. Dorsal view. Jones Wharf.	
Fig. 6. Fissuridea redimicula (Say)	5b. Lateral view of the same specimen.	
6. Lateral view of type specimen. St. Mary's River. British Museum. (After Say.)  Figs. 7a, 7b. Emarginula marylandica n. sp		
6. Lateral view of type specimen. St. Mary's River. British Museum. (After Say.)  Figs. 7a, 7b. Emarginula marylandica n. sp	Fig. 6. FISSURIDEA REDIMICULA (Sav)	269
Museum. (After Say.)  Figs. 7a, 7b. Emarginula marylandica n. sp		
Figs. 7a, 7b. Emarginula marylandica n. sp	•	
7a. Lateral view. Greensboro.	museum. (Arter Saj.)	
· · · · · · · · · · · · · · · · · · ·	Figs. 7a, 7b. Emarginula marylandica n. sp	269
7h Dorsel view of the same specimen	7a. Lateral view. Greensboro.	
ib. Dorbar view of the bame specimen.	7b. Dorsal view of the same specimen.	



MOLLUSCA—GASTROPODA.

#### PLATE LXIV.

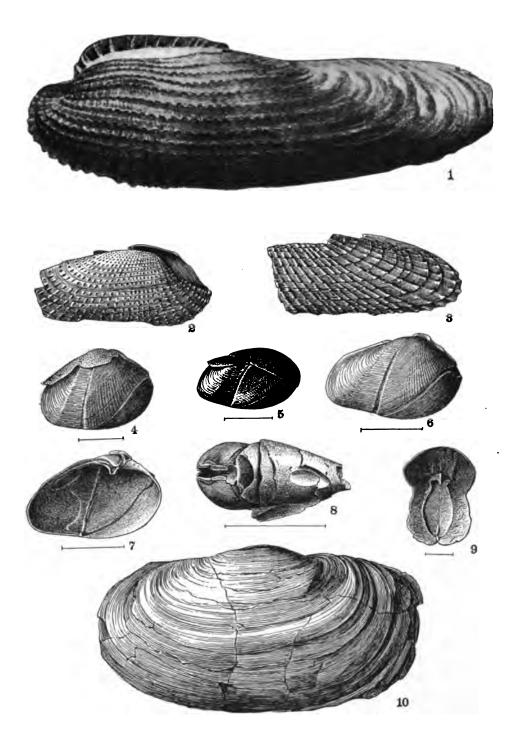
I DAIL DAIV.	
	PAGE 970
Figs. 1, 2. Chætopleura apiculata (Say)	210
<ol> <li>Ventral view of posterior valve. 3 miles south of Chesapeake Beach.</li> </ol>	
1b. Dorsal view of the same specimen.	
2a. Dorsal view of anterior valve. Plum Point. U. S. National Museum.	
2b. Ventral view of the same specimen.	
2c. Anterior view of the same specimen.	
Fig. 3. Dentalium attenuatum Say	271
3. Specimen from St. Mary's River.	
Fig. 4. Dentalium danai Meyer	272
4. Specimen from Plum Point.	
Figs. 5a, 5b. Dentalium caduloide Dall	272
5a. View of specimen from St. Mary's River. U. S. National Museum. (After Dall.)	
5b. View of aperture of the same specimen. (After Dall.)	
Fig. 6. Cadulus thallus (Conrad)	273
6. Specimen from Plum Point.	
Fig. 7. Cadulus newtonensis Meyer and Aldrich	273
7. Specimen from Jones Wharf.	



MOLLUSCA-AMPHINEURA AND SCAPHOPODA.

#### PLATE LXV.

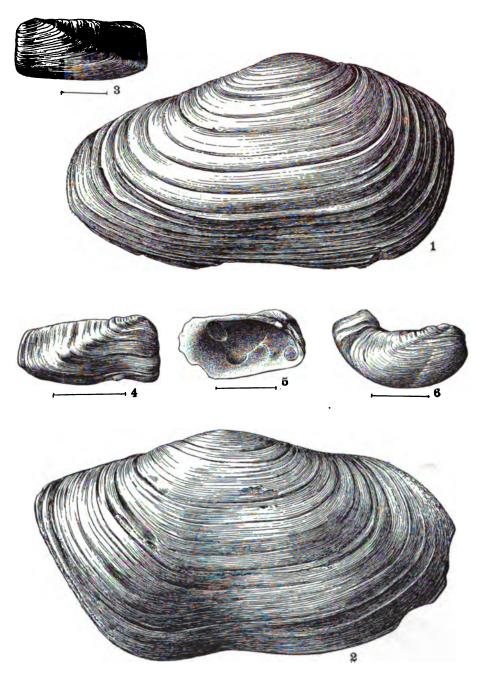
Fig. 1. Pholas (Thorana) producta Conrad	274
Figs. 2, 3. Barnea (Scobina) arcuata (Conrad)	274
Figs. 4-9. Martesia ovalis (Say)	275
Fig. 10. Panopea whitfield Dall	276



MOLLUSCA-PELECYPODA.

# PLATE LXVI.

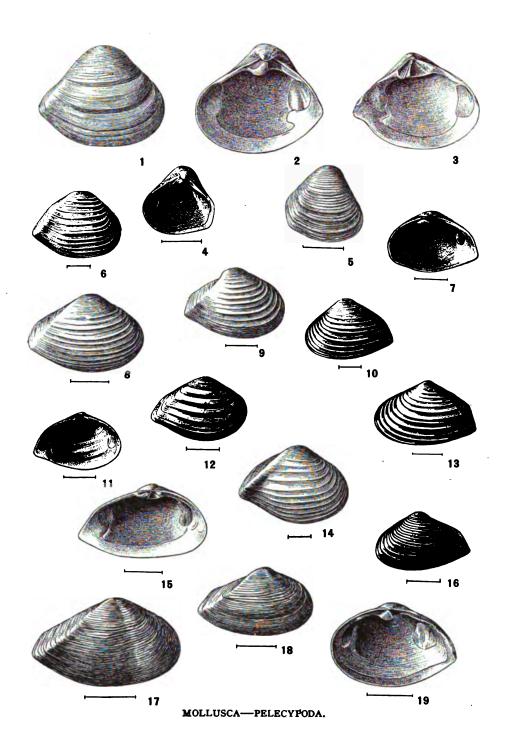
- P	PAGE
Fig. 1. Panopea goldfussii Wagner	277
1. Exterior of right valve. Plum Point.	
Fig. 2. Panopea americana Conrad	278
2. Exterior of left valve. Plum Point.	
Figs. 3-6. Saxicava arctica (Linné)	278
3. Exterior of left valve. Plum Point.	
4. Exterior of right valve. Jones Wharf.	
5. Interior of left valve. Jones Wharf.	
6. Exterior of right valve of one of numerous distorted forms.	
Chesaneake Beach	



MOLLUSCA—PELECYPODA.

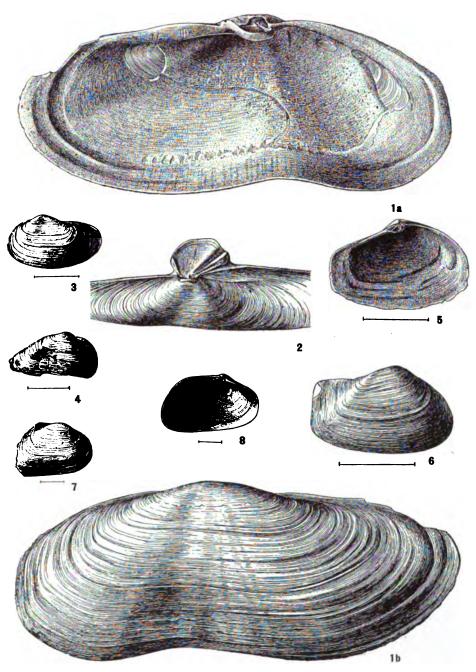
#### PLATE LXVII.

ILAIE DAVII.	
	PAGE
Figs. 1-3. Corbula idonea Conrad	279
1. Exterior of right valve. Jones Wharf.	
2. Interior of right valve of another specimen. Same locality.	
3. Interior of left valve. Same locality.	
Figs. 4-5. Corbula elevata Conrad	280
4. Interior of right valve. Plum Point.	
5. Exterior of right valve. Same locality.	
Figs. 6-14. Corbula in Equalis Say	281
6. Exterior of right valve. Church Hill.	
7. Interior of right valve. Plum Point.	
8. Exterior of right valve of large variety. St. Mary's River.	
9. Exterior of valve. Jones Wharf.	
10. Exterior of left valve. Church Hill.	
11. Interior of left valve of coarsely sculptured variety. Plum	
Point.	
12. Exterior of right valve of same individual as shown in Fig. 11.	
13. Exterior of left valve. Jones Wharf.	
14. Exterior of right valve. Oligocene of Oak Grove, Fla. Type specimen of C. whitfieldi Dall. (After Dall.)	
Figs. 15-19. Corbula cuneata Say	282
15. Interior of left valve. Jones Wharf.	
16. Exterior of left valve. Same locality.	
17. Exterior of right valve. Same locality.	
18. Exterior of right valve. Same locality.	
19. Interior of right valve. Same locality.	



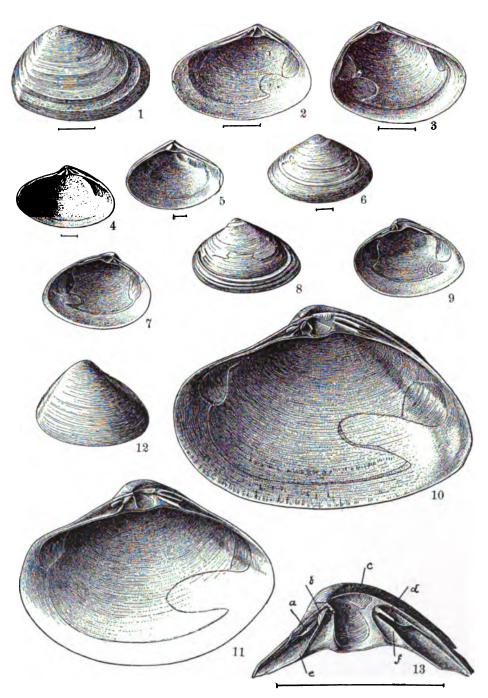
# PLATE LXVIII.

	PAGE
Figs. 1a, 1b, 2. Mya producta Conrad	283
1a. Interior of left valve. Jones Wharf.	
1b. Exterior of same valve.	
2. Profile of hinge area of same valve.	
Figs. 3-6. Sphenia dubia (H. C. Lea)	283
3. Exterior of left valve. Jones Wharf.	
4. Exterior of right valve. Jones Wharf.	
5. Interior of left valve, large specimen. Jones Wharf.	
6. Exterior of right valve, same individual as Fig. 5.	
Figs. 7, 8. Paramya subovata Conrad	284
7. Interior of left valve. Two miles south of Governor Run.	
8. Exterior broken valve. Jones Wharf.	



MOLLUSCA-PELECYPODA. .

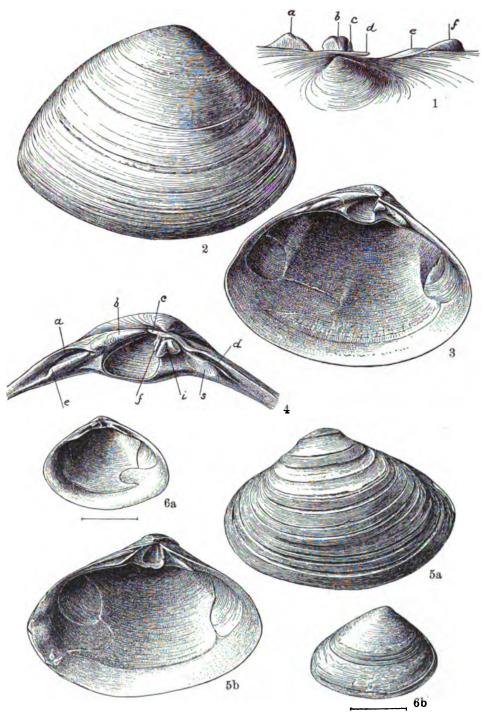
PLATE LXIX.	
	PAGE
Figs. 1-3. Mesodesma mariana n. sp	285
1. Exterior of right valve. Cove Point.	
2. Interior of right valve. Same locality.	
3. Interior of left valve. Same locality.	
Figs. 4-6. Ervilia planata Dall	285
4. Interior of left valve. Church Hill.	
5. Interior of right valve. Same locality.	
6. Exterior of left valve. Same locality.	
Figs. 7-9. Mactra clathrodon Lea	286
7. Interior of left valve. Cove Point.	
8. Exterior of left valve. Same locality.	
9. Interior of right valve. Same locality.	
Fig. 10. Spisula (Hemimactra) delumbis (Conrad)	286
10. Interior of right valve. Suffolk, Va. 96 mm. (After Dall.) $\times5/6$	
Fig. 11. Spisula (Hemimactra) marylandica Dall	287
11. Interior of right valve. 92 mm. (After Dall.) $\times \%$	
Figs. 12, 13. Spisula (Hemimactra) curtidens Dall	288
<ol> <li>Outline of young shell traced from incremental lines on broken larger valve. 35 mm. (After Dall.) × 5/6</li> </ol>	
13. Hinge-plate of right valve: $a$ , dorsal and $e$ , ventral anterior	
laminae; b, anterior arm of cardinal tooth; c, ligament scar,	
without septum below it; $d$ and $f$ , posterior laminae. 44 mm.	
(After Dall.)	
(	



MOLLUSCA—PELECYPODA.

### PLATE LXX

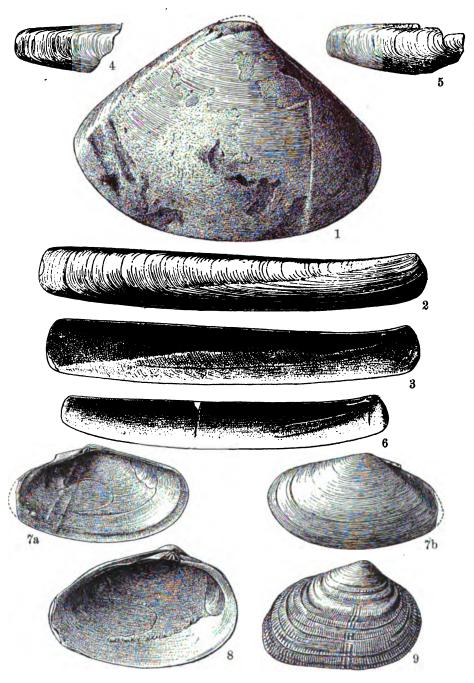
IDAID DAA.	
2	AGE
Figs. 1-4. Spisula (Hemimactra) subponderosa (d'Orbigny)	
anterior lamina with s, absorption scar, from central lamina of opposite valve. 70 mm. (After Dall.)	
Figs. 5a, 5b. Spisula (Hemimactra) confraga (Conrad)	289
5b. Interior of the same valve.	
Figs. 6a, 6b. Spisula (Hemimactra) subpabilis (Conrad)	289



MOLLUSCA—PELECYPODA.

#### PLATE LXXI.

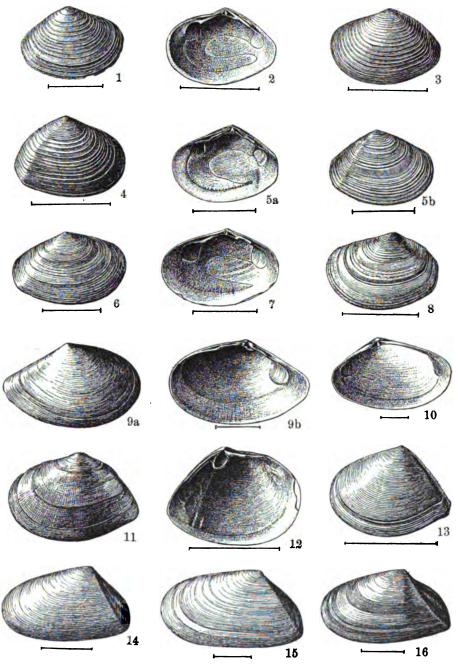
	PAGE
Fig. 1. Spisula (Hemimactra?) chesapeakensis n. sp	290
1. Exterior of right valve. 3 miles north of Plum Point. × %	
Figs. 2, 3. Ensis directus (Conrad)	291
2. Interior of left valve. Yorktown, Va.	
3. Exterior of right valve. Same locality.	
Figs. 4-6. Ensis ensiformis Conrad	292
4. Posterior portion of broken valve. St. Mary's River.	
5. Posterior portion of broken valve. Same locality.	
6. Interior of left valve. York River, Va.	
Figs. 7a, 7b. Psammobia gubernatoria n. sp	292
7a. Interior of left valve. Jones Wharf.	
7b. Exterior of same valve.	
Figs. 8, 9. Asaphis centenaria (Conrad)	293
8. Interior of left valve. Jones Wharf.	
9. Exterior of left valve. Same locality.	



MOLLUSCA—PELECYPODA.

# PLATE LXXII.

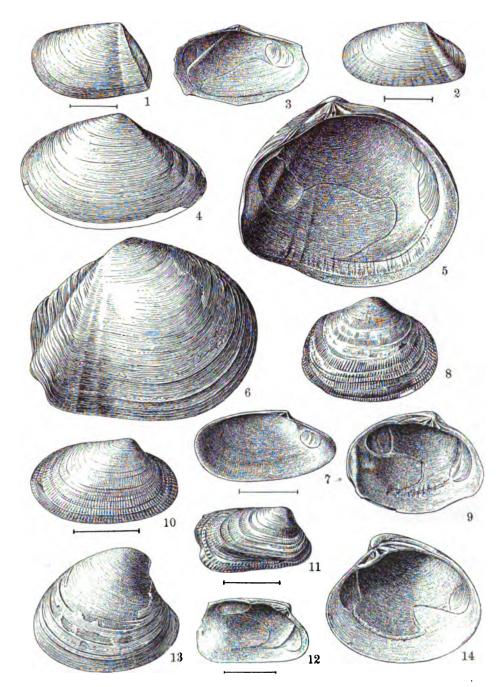
70 10. 7	PAGE
Figs. 1-3. Semele carinata (Conrad)	294
<ol> <li>Exterior of right valve. St. Mary's River.</li> <li>Interior of right valve. Same locality.</li> </ol>	
3. Exterior of left valve. Same locality.	
3. Extends of left valve. Same locality.	
Figs. 4, 5a, 5b. Semele cabinata var. compacta Dall	294
4. Exterior of right valve. St. Mary's River.	
5a. Interior of right valve. Oligocene of Oak Grove, Fla. 16.5 mm. (After Dall.)	
5b. Exterior of valve of Fig. 5a. (After Dall.)	
,	
Figs. 6-8. Semele subovata Say	295
6. Exterior of right valve. Jones Wharf.	
7. Interior of right valve. Same locality.	
8. Exterior of left valve. Same locality.	
Figs. 9a, 9b. Abra Longicalla (Scacchi)	296
9a. Exterior of right valve. Jones Wharf.	
9b. Interior of same valve.	
Fig. 10. ABRA MARYLANDICA n. sp	296
10. Interior of left valve. Plum Point.	
10. Interior of left varye. Figure 1 out.	
Figs. 11, 12. Cumingia medialis Conrad	297
11. Exterior of left valve. Jones Wharf. (?)	
12. Interior of left valve. Same locality.	
•	
Fig. 13. Tellina æquistriata Say	297
13. Exterior of left valve. Jones Wharf. (?)	
Fig. 14. Tellina (Angulus) declivis Conrad	<b>29</b> 8
14. Exterior of left valve. Plum Point.	
771 45 40 Mars (A)	
Figs. 15, 16. Tellina (Angulus) producta Conrad	299
15. Exterior of left valve. Plum Point.	
16. Exterior of left valve. Cove Point.	



MOLLUSCA—PELECYPODA.

# PLATE LXXIII.

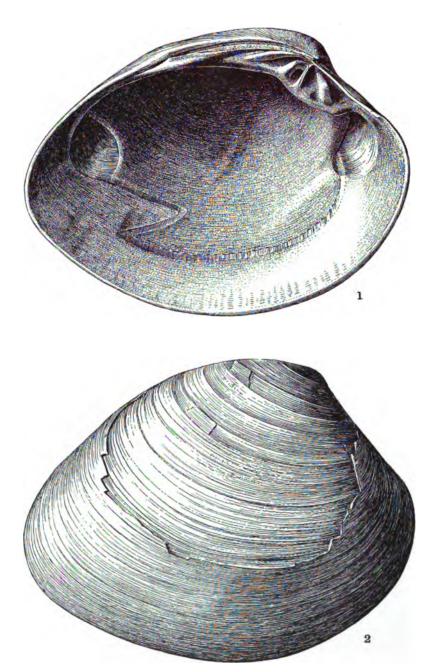
Fig. 1. Tellina (Angulus) dupliniana Dall	299
<ol> <li>Exterior of left valve. Duplin Co., N. C.; length 12.5 mm. (After Dall.)</li> </ol>	
Fig. 2. Tellina (Angulus) umbra Dall	
Figs. 3, 4. Macoma Lenis (Conrad)	301
Figs. 5, 6. Metis Biplicata Conrad	301
Fig. 7. MACOMA MARYLANDICA n. sp	302
Figs. 8, 9. Petricola Harrisii Dall	302
Figs. 10-12. Petricola (Petricolaria) calvertensis Dall	
Figs. 13, 14. CALLOCARDIA (AGRIOPOMA) SAYANA (Conrad)	313



MOLLUSCA—PELECYPODA.

# PLATE LXXIV.

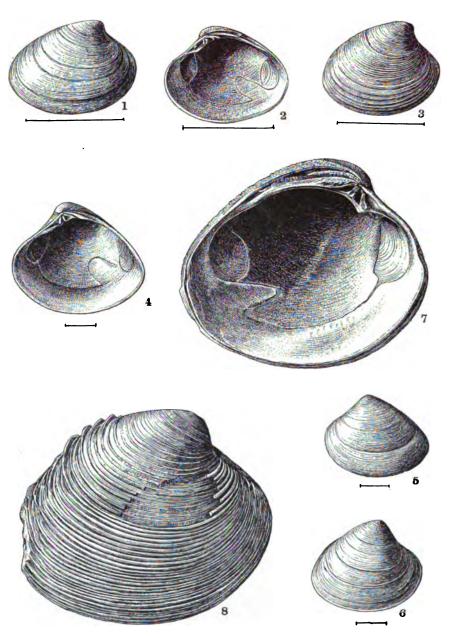
	PAGI
Figs. 1, 2. Macrocallista marylandica (Conrad)	311
1. Interior of left valve. Jones Wharf.	
2. Exterior of right valve. Same locality.	



MOLLUSCA—PELECYPODA.

## PLATE LXXV.

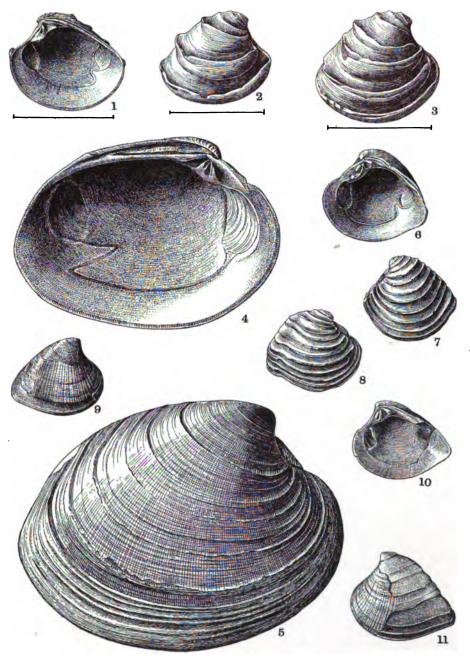
	PAGE
Figs. 1-3. Callocardia (Agriopoma) subnasuta (Conrad)	312
1. Exterior of right valve. St. Mary's River.	
2. Interior of right valve. Same locality.	
3. Exterior of right valve. Same locality.	
Figs. 4-6. Callocardia (Agbiopoma) prunensis n. sp	313
4. Interior of right valve. Plum Point.	
5. Exterior of left valve. Same locality.	
6. Exterior of right valve. Same locality.	
Figs. 7, 8. Venus ducateli Conrad	304
7. Interior of left valve. Church Hill.	
8. Exterior of right valve. Same locality.	



MOLLUSCA—PELECYPODA.

## PLATE LXXVI.

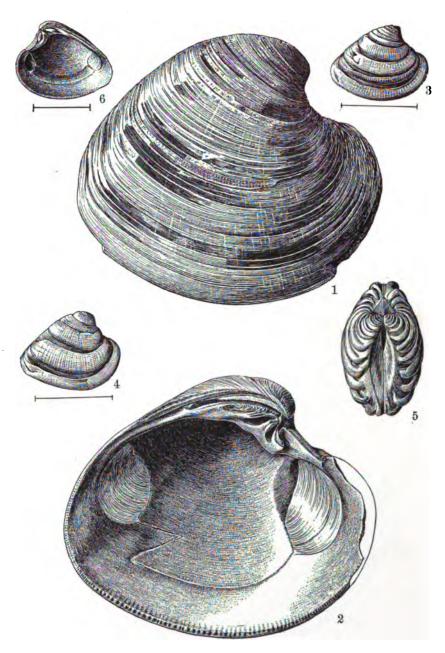
Figs. 1-3. Chione alveata (Conrad)	PAGE
1. Interior of right valve. St. Mary's River.	010
2. Exterior of right valve. Same locality.	
•	
3. Exterior of right valve. Same locality.	
Figs. 4, 5. Venus rileyi Conrad	304
4. Interior of left valve. Plum Point.	
5. Exterior of right valve. Same locality.	
Figs. 6-8. Cytherea (Antigona) staminea Confad	314
6. Interior of right valve. Plum Point.	
7. Exterior of left valve. Same locality.	
8. Exterior of right valve. Same locality.	
Figs. 9-11. Chione parkeria n. sp	310
9. Exterior of right valve. Two miles south of Parker's Creek.	
10. Interior of right valve. Same locality.	
11. Exterior of left valve. Same locality.	



MOLLUSCA—PELECYPODA.

## PLATE LXXVII.

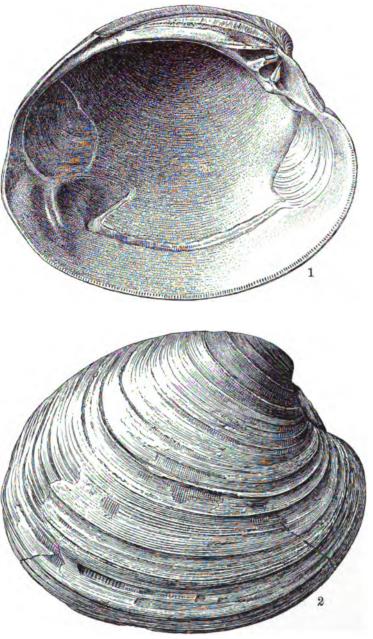
	PAGE
Figs. 1, 2. Venus campechiensis var. mortoni (Conrad)	307
1. Exterior of right valve. Cove Point.	
2. Interior of left valve. Same locality.	
Figs. 3-6. Chione latilirata (Conrad)	309
3. Exterior of right valve. Plum Point.	
4. Exterior of right valve. Same locality.	
5. Dorsal view. The Pliocene of the Waccamaw beds, S. C., length	
34 mm. (After Dall.)	
6. Interior view of right valve. Plum Point.	



MOLLUSCA-PELECY PODA.

# PLATE LXXVIII.

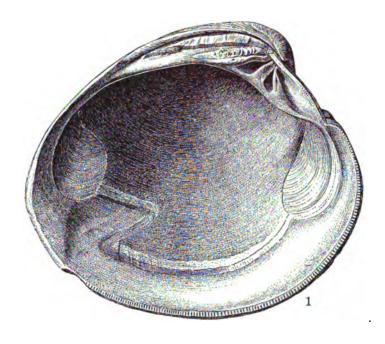
	PAGI
Figs. 1, 2. Venus mercenaria Linné	308
1. Interior of left valve. Plum Point.	
2. Exterior of right valve. Same locality.	

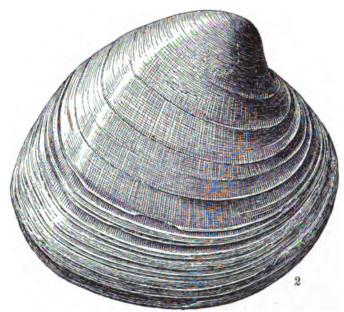


MOLLUSCA—PELECYPODA.

## PLATE LXXIX.

	PAGE
Figs. 1, 2. Venus plena (Conrad)	306
1. Interior of left valve. Governor's Run.	
2. Exterior of right valve. Same locality.	

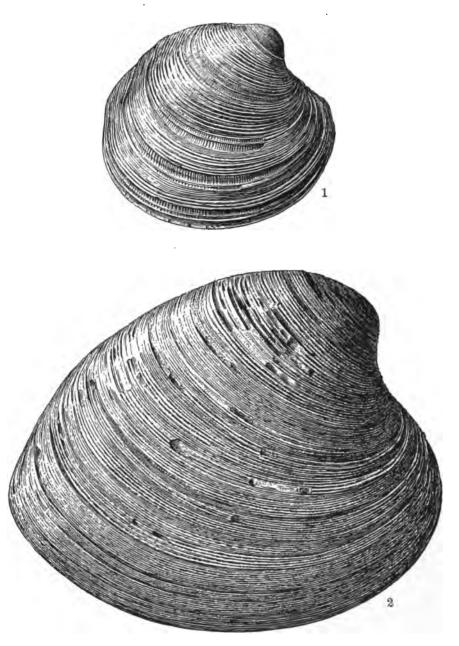




MOLLUSCA-PELECYPODA.

# PLATE LXXX.

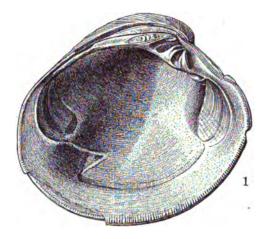
Fig. 1. Venus campechiensis var. capax (Conrad)	. 308
Fig. 2. Venus campechiensis var. tetrica (Conrad)	. 307

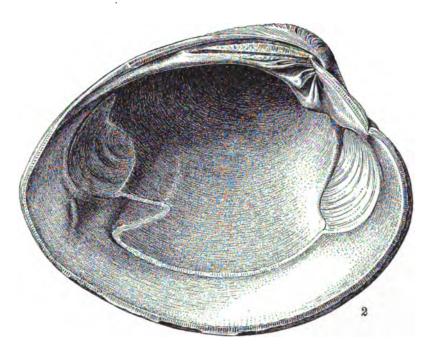


MOLLUSCA-PELECYPODA.

## PLATE LXXXI.

Fig. 1. Venus campechiensis var. capax (Conrad)	30
Fig. 2. Venus campechiensis var. tetrica (Conrad)	30

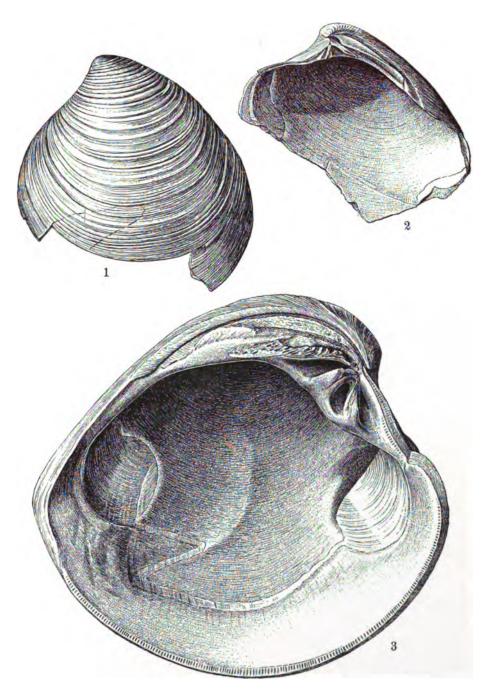




MOLLUSCA-PELECYPODA.

# PLATE LXXXII.

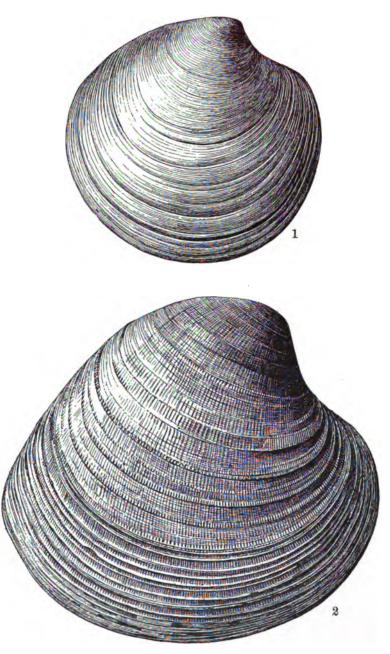
			PAGI
Figs. 1	, 2. CLEMENTIA IN	ceriformis (Wagner) .	
1.	Exterior of left val	re. Cove Point.	
2.	Interior of broken r	ight valve. Same localit	y.
Fig. 3.	VENUS CAMPECHIE	isis var. cuneata (Conr	ad) 308
2	Interior of left male	o Iones Wherf	



MOLLUSCA—PELECYPODA.

## PLATE LXXXIII.

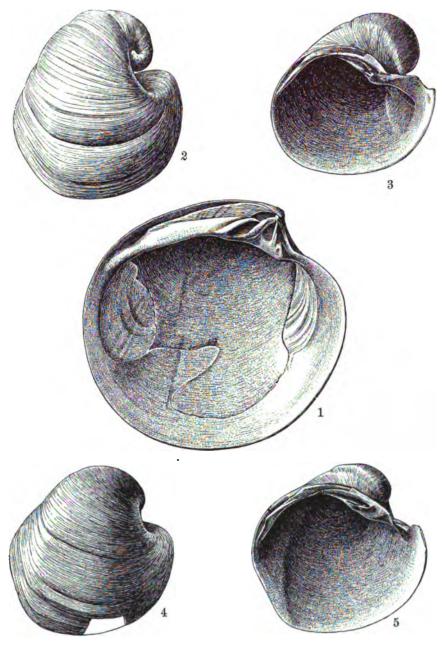
	PAGI
Fig. 1. Dosinia acetabulum Conrad	318
1. Exterior of right valve. St. Mary's River.	
Fig. 2. Venus campechiensis var. cuneata (Conrad)	308
2 Exterior of right valve lones Wharf	



MOLLUSCA—PELECYPODA.

#### PLATE LXXXIV.

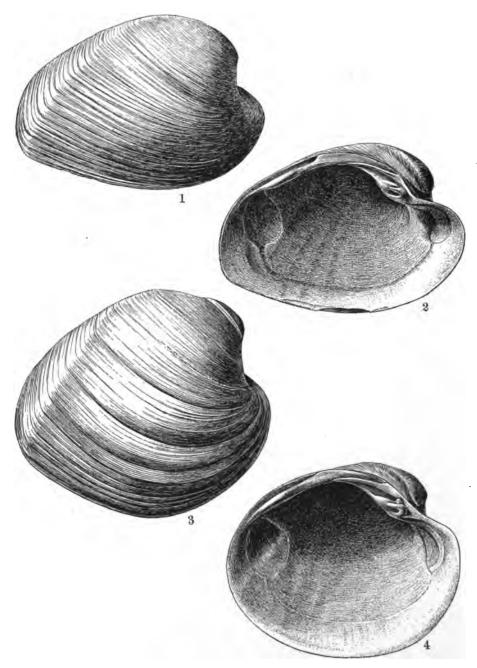
	PAGE
Fig. 1. Dosinia acetabulum Conrad	315
1. Interior of left valve. St. Mary's River.	
Figs. 2, 3. Isocardia markoëi Conrad	316
2. Exterior of right valve. Plum Point.	
3. Interior of left valve. Same locality.	
Figs. 4, 5. Isocardia mazlea n. sp	317
4. Exterior of right valve. Plum Point.	
5. Interior of left valve. Same locality.	



MOLLUSCA-PELECYPODA.

## PLATE LXXXV.

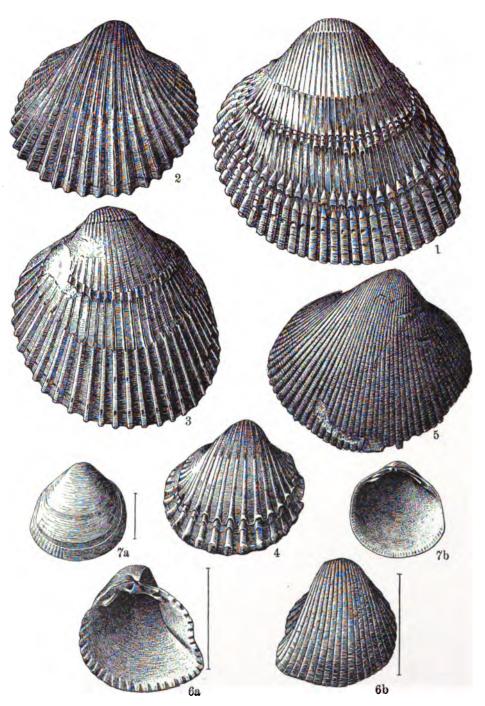
	LAGE
Figs. 1, 2. Isocardia ignolea n. sp	318
1. Exterior of right valve. Cove Point?	
2. Interior of left valve of same individual.	
Figs. 3, 4. Isocardia fraterna Say	317
3. Exterior of right valve. Jones Wharf.	
4. Interior of left valve. Same locality.	



MOLLUSCA-PELECYPODA.

#### PLATE LXXXVI.

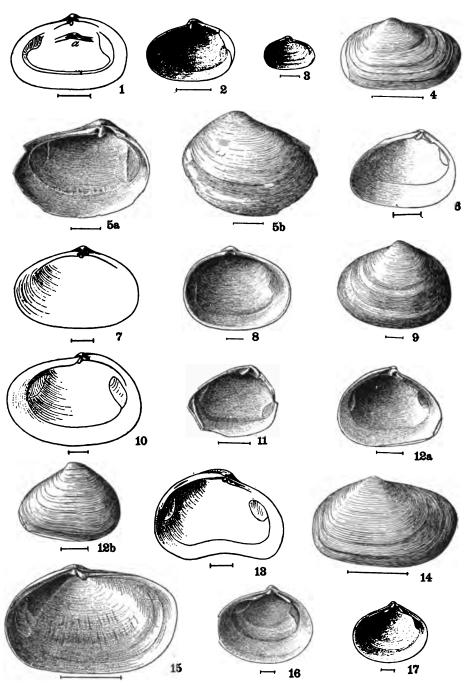
_	1. CARDIUM (CERASTODERMA) LAQUEATUM CONTAG	PAGE 319
Fig.	2. CARDIUM (CERASTODERMA) LEPTOPLEUBUM Conrad	320
_	3. CARDIUM (CERASTODERMA) CRATICULOIDE Conrad	320
	4. CARDIUM (CERASTODERMA) CALVERTENSIUM n. sp	321
	5. CARDIUM (CERASTODERMA) PATUXENTIUM n. sp	322
	6a, 6b. CARDIUM (FRAGUM) MEDIUM Linné	322
	7a, 7b. CARDIUM (LÆVICARDIUM) MOBTONI CONTAD	323



MOLLUSCA-PELECYPODA.

# PLATE LXXXVII.

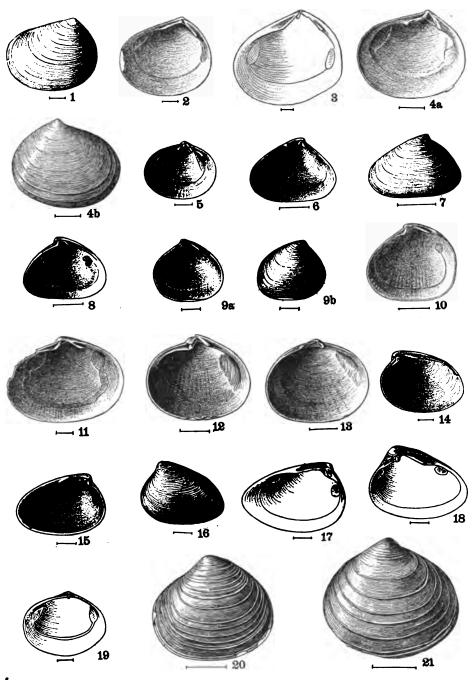
	PAGE
Figs. 1-4. Solecardia (Spaniorinus) cossmanni Dall	
Museum. (After Dall.)	
<ol> <li>Hinge of left valve. Same locality and collection. (After Dall.)</li> <li>Interior of right valve. Cove Point.</li> </ol>	
3. Interior of left valve. Same locality.	
4. Exterior of right valve. Same locality.	
Figs. 5a, 5b. Sportella whitfield Dall	324
<ul><li>5a. Interior of right valve. Plum Point.</li><li>5b. Exterior of same valve.</li></ul>	
Fig. 6. Sportella pelex Dall	325
<ol> <li>Interior of right valve. Miocene of Virginia. U. S. National Museum. (After Dall.)</li> </ol>	
Fig. 7. Sportella petropolitana Dall	325
<ol> <li>Interior of right valve. Petersburg, Virginia. U. S. National Muse (After Dall.)</li> </ol>	eum.
Figs. 8-10. Sportella recessa n. sp	326
8. Interior of left valve. Cove Point.	
9. Exterior of left valve. Same locality.	
10 Interior of right valve. Same locality. U. S. National Museum.	
Fig. 11. Sportella patuxentia n. sp	326
11. Interior of right valve. Cove Point.	
Figs. 12a-13. Hindsiella acuta Dall	326
12a. Interior of left valve. St. Mary's River.	
<ul><li>12b. Exterior of same specimen.</li><li>13. Interior of left valve. Miocene of North Carolina. U. S.</li></ul>	
National Museum.	
Figs. 14, 15. Erycina (Pseudopythina?) americana Dall	329
<ol> <li>Exterior of right valve. Calvert Cliffs. U. S. National Museum. (After Dall.)</li> </ol>	
<ol> <li>Interior of left valve. Same locality and collection. (After Dall.)</li> </ol>	
Fig. 16. ERYCINA CALVERTENSIS n. sp	327
16. Interior of right valve. Plum Point.	
Fig. 17. Erycina pruna n. sp	327
17. Interior of right valve. Plum Point.	



MOLLUSCA-PELECYPODA.

## PLATE LXXXVIII.

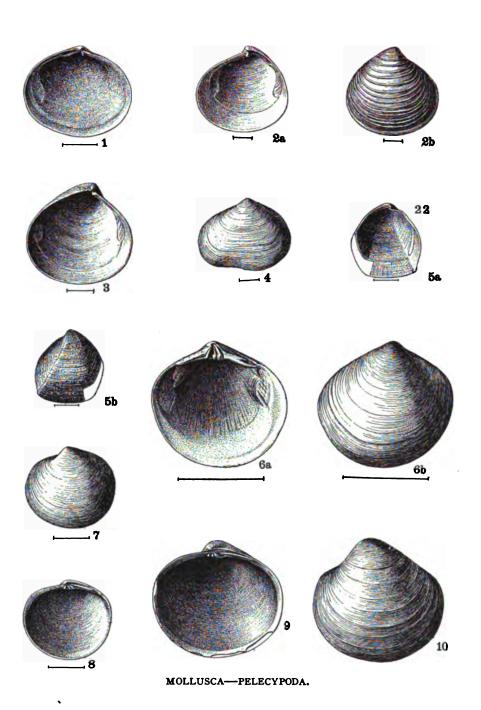
	PAGE
Figs. 1-3. Erycina marylandica n. sp	328
1. Exterior of left valve. Three miles south of Chesapeake Beach.	
2. Interior of right valve. Same locality.	
3. Interior of right valve. Plum Point. U. S. National Museum.	
(After Dall.)	
Figs. 4a, 4b. Erycina bickardia n. sp	298
4a. Interior of right valve. Plum Point.	020
4b. Exterior of same valve.	
10. DATOHOL OF BRIDG VENTE.	
Fig. 5. Erycina speciosa n. sp	329
5. Interior of right valve. Plum Point.	
Figs. 6-8. Bornia mactroides (Conrad)	330
6. Interior of left valve. Dover Bridge.	
7. Exterior of right valve. Same locality.	
8. Interior of right valve. Same locality.	
Figs. 9a, 9b. Bornia triangula Dall	220
9a. Interior of right valve. Three miles west of Centerville.	000
9b. Exterior of same valve.	
Fig. 10. Bornia marylandica n. sp	330
10. Interior of right valve. Greensboro.	
Fig. 11. Bornia depressa n. sp	331
11. Interior of right valve. Plum Point.	
Figs. 12, 13. Kellia botundula n. sp	221
12. Interior of right valve. Governor's Run.	991
13. Interior of left valve. Same locality.	
Figs. 14-18. Thecodonta (Dicranodesma) calvertensis n. sp	332
14. Interior of right valve. Plum Point.	
15. Interior of left valve. Same locality.	
16. Exterior of left valve. Same locality.	
17. Interior of left valve. Plum Point. U. S. National Museum	•
(After Dall.) 18. Interior of right valve. Plum Point. U. S. National Museum	
(After Dall.)	•
(	
Fig. 19. Montacuta mariana Dall	. 332
19. Interior of right valve. St. Mary's River or Plum Point. U. S	
National Museum. (After Dall.)	
74 00 01 Avenue 707-7- (Ce	900
Figs. 20, 21. Aligena Æquata (Conrad)	. ააა
20. Exterior of left valve. Jones Wharf. 21. Exterior of right valve. Same locality.	
or reper terior commo recental.	



MOLLUSCA-PELECYPODA.

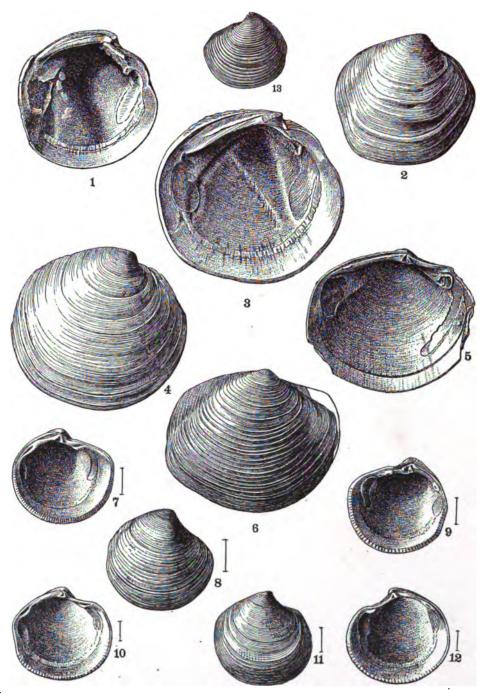
## PLATE LXXXIX.

	PAGE
Figs. 1-3. Aligena ÆQUATA (Conrad)	333
<ol> <li>Interior of left valve. Jones Wharf.</li> </ol>	
<ol> <li>Interior of left valve. Miocene of Virginia. U. S. National Museum. (After Dall.)</li> </ol>	
2b. Exterior of the same valve. (After Dall.)	
<ol> <li>Interior of right valve. Miocene of Virginia. U. S. National Museum. (After Dall.)</li> </ol>	
Fig. 4. Aligena ÆQUATA var. NUDA Dall	333
Figs. 5a, 5b. Aligena pustulosa Dall	334
5a. Interior of left valve. Oligocene of Oak Grove, Florida. U. S.	
National Museum. (After Dall.)	
5b. Exterior of same specimen. (After Dall.)	
Figs. 6a, 6b. Diplodonta acclinis Conrad	334
6a. Interior of right valve. Caloosahatchie beds. U. S. National Museum. (After Dall.)	
6b. Exterior of same valve. (After Dall.)	
Figs. 7, 8. Diplodonta shilohensis Dall	335
7. Exterior of left valve. Jones Wharf.	
8. Interior of right valve. Same locality.	
Figs. 9, 10. DIPLODONTA SUBVEXA (Conrad)	335
9. Interior of right valve. Flag Pond.	
10. Exterior of left valve. Same locality.	



### PLATE XC.

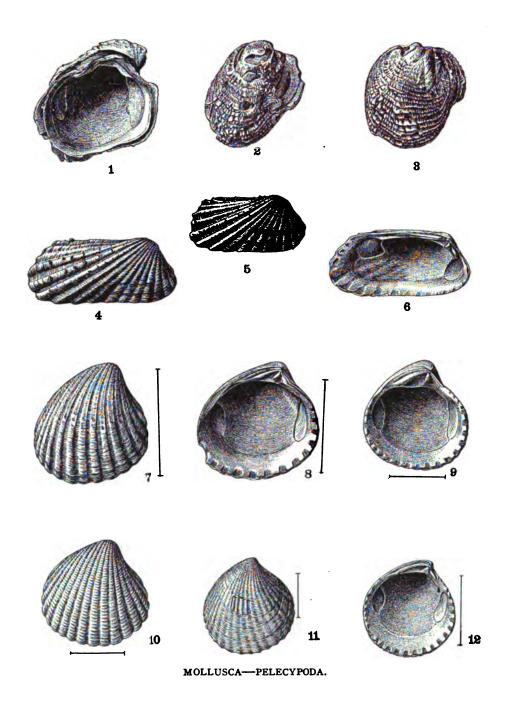
FLATE AC.	
	PAGE
Figs. 1, 2. Phacoides (Pseudomiltha) foremani (Conrad)	336
1. Interior of left valve. Plum Point.	
2. Exterior of right valve. Same locality.	
Figs. 3, 4. Phacoides (Pseudomiltha) anodonta (Say)	337
3. Interior of left valve. Jones Wharf.	
4. Exterior of right valve. Same locality.	
Figs. 5, 6. Phacoides (Lucinoma) contractus (Say)	339
5. Interior of left valve. Pawpaw Point.	
6. Exterior of right valve. Same locality.	
Figs. 7-9. Phacoides (Here) trisulcatus (Conrad)	337
7. Interior of left valve. Plum Point.	
8. Exterior of right valve. Same locality.	
9. Interior of right valve. Same locality.	
Figs. 10-12. Phacoides (Parvilucina) crenulatus (Conrad)	340
10. Interior of left valve. Cove Point.	
11. Exterior of right valve. Same locality.	
12. Interior of right valve. Same locality.	
Fig. 13. Phacoides (Parvilucina) prunus Dall	340
13. Exterior of left valve. Plum Point. U. S. National Museum. (After Dail.) $\times$ 3.	



MOLLUSCA-PELECYPODA.

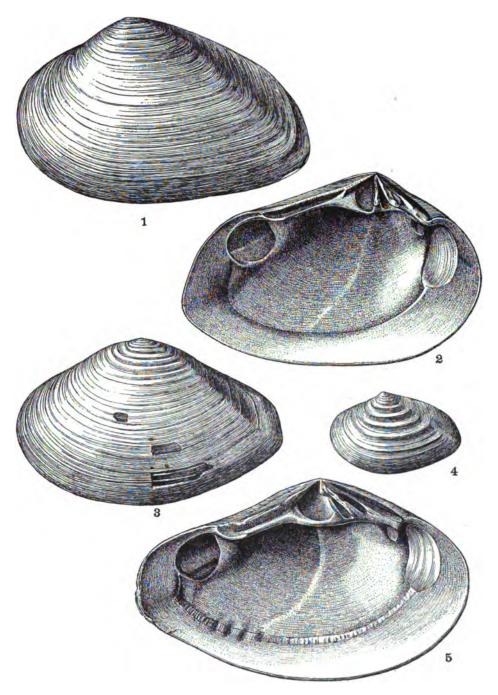
## PLATE XCI.

	AGI
Figs. 1-3. Chama congregata Conrad	42
1. Interior of left valve. Church Hill.	
2. Exterior of right valve. Same locality.	
3. Exterior of right valve. Same locality.	
Figs. 4-6. Cardita protracta (Conrad)	43
4. Exterior of right valve. Governor Run.	
5. Exterior of right valve. Same locality.	
6. Interior of left valve. Same locality.	
Figs. 7-10. Venericardia granulata Say	44
7. Exterior of right valve, large variety. St. Mary's River.	
8. Interior of left valve. Same locality.	
9. Interior of left valve, smaller variety. Plum Point.	
10. Exterior of right valve, smaller variety. Same locality.	
Figs. 11, 12. Venericardia castrana n. sp 3	45
11. Exterior of right valve. Church Hill.	
12. Interior of left valve. Same locality.	



# PLATE XCII.

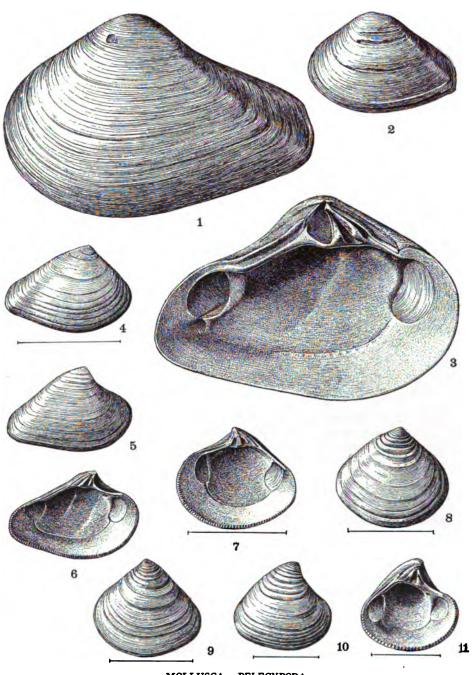
P.	A GE
1, 2. Crassatellites melinus (Conrad)	146
. Exterior of left valve. Plum Point.	
. Interior of left valve. Same locality. $\times$ 8/9	
3-5. Crassatellites turgidulus (Conrad)	148
. Exterior of left valve. Jones Wharf.	
. Exterior of left valve of young. Same locality.	
. Interior of left valve. Same locality.	



MOLLUSCA-PELECYPODA.

## PLATE XCIII.

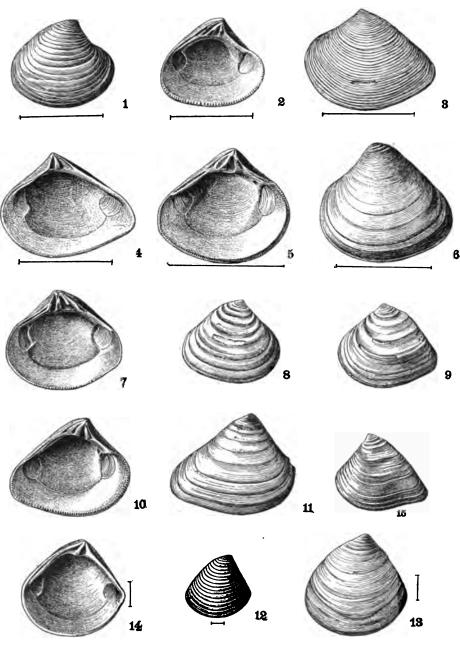
PA	AGE
Figs. 1-3. Crassatellites marylandicus (Conrad) 3	47
1. Exterior of left valve. Dover Bridge.	
2. Exterior of left valve of young individual.	
3. Interior of left valve. Same locality.	
Figs. 4-6. Astarte cuneiformis Conrad	53
4. Exterior of right valve. Plum Point.	
5. Exterior of right valve. Same locality.	
6. Interior of left valve. Same locality.	
Figs. 7-9. Astarte castrana n. sp	53
7. Interior of right valve. Reed's.	
8. Exterior of right valve. Same locality.	
9. Exterior of left valve. Same locality.	
Figs. 10, 11. Astable vicina Say	50
10. Exterior of right valve. Plum Point.	
11. Interior of left valve. Same locality.	



MOLLUSCA-PELECYPODA.

#### PLATE XCIV.

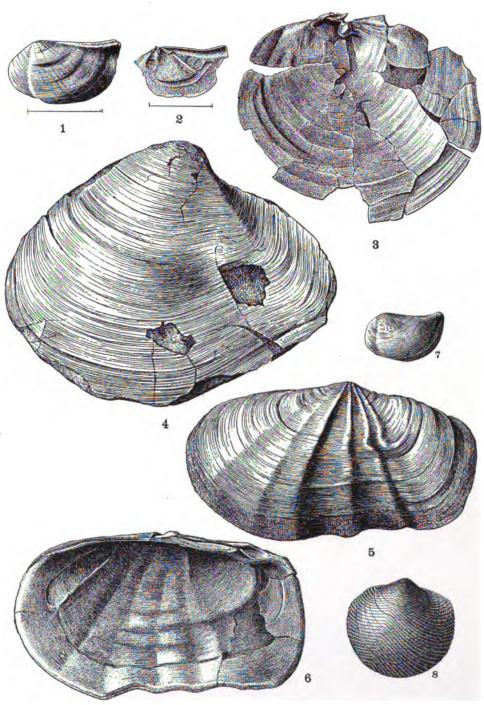
Figs. 1, 2. Astabte thomasii Conrad	351
1. Exterior of right valve. Plum Point.	
2. Interior of left valve. Same locality.	
Figs. 3, 4. Astarte calvertensis n. sp	35 <b>2</b>
3. Exterior of left valve. Plum Point.	
4. Interior of right valve. Same locality.	
Figs. 5, 6. Astarte obbuta Conrad	354
5. Interior of left valve. Dover Bridge.	
6. Exterior of left valve. Same locality.	
Figs. 7-9. Astabte thisphila n. sp	355
7. Interior of right valve. Jones Wharf.	
8. Exterior of right valve. Same locality.	
<ol><li>Exterior of left valve—the most characteristic drawing. Same locality.</li></ol>	
Figs. 10, 11. Astarte perplana Conrad	356
10. Interior of left valve. St. Mary's River.	
11. Exterior of right valve. Same locality.	
Fig. 12. Crassatellites (Crassinella) duplinianus Dall 3	349
12. Exterior of right valve of type specimen. Duplin county, North	
Carolina. U. S. National Museum.	
Figs. 13, 14. Crassatellites (Crassinella) galvestonensis (Herris) 3	350
13. Exterior of right valve. St. Mary's River.	
14. Interior of left valve. Same locality.	
Fig. 15. Astarte parma Dall 3	357
15. Exterior of left valve. (After Dall.) $\times 4/5$	



MOLLUSCA—PELECYPODA.

## PLATE XCV.

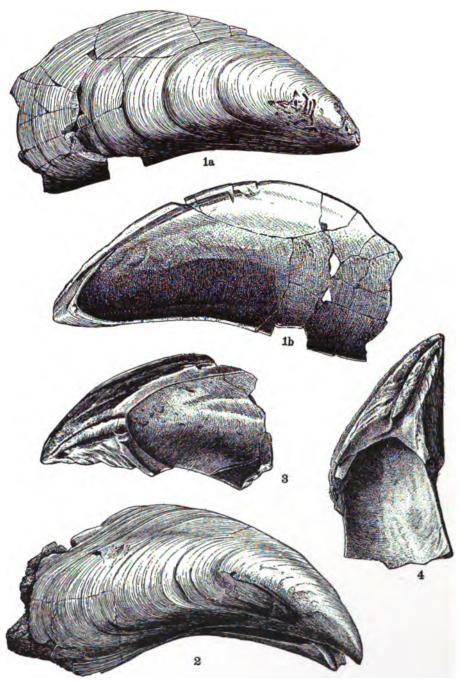
Figs. 1, 2. Pandora (Clidiophora) crassidens Conrad	PAGI 357
Fig. 3. Periploma peralta Conrad	359
Fig. 4. Thracia conradi Couthouy	359
Figs. 5, 6. Margaritaria abrupta (Conrad)	361
Fig. 7. PANDORA (KENNERLEYIA) LATA Dall	358
Fig. 8. Divaricella quadrisulcata (d'Orbigny)	341



MOLLUSCA—PELECYPODA.

# PLATE XCVI.

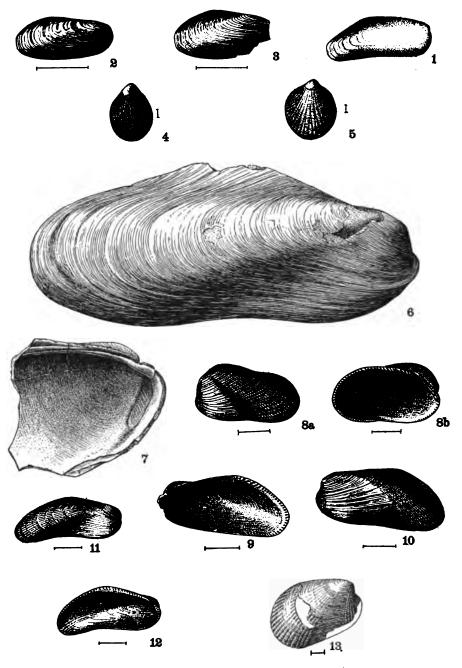
	PAGI
Figs. 1a, 1b. MYTILUS CONRADINUS d'Orbigny	362
1a. Exterior of right valve. Plum Point. $\times \frac{1}{2}$ .	
1b. Interior of same valve.	
Figs. 2-4. MYTILUS (MYTILOCONCHA) INCURVUS CONFAD	363
2. Exterior of right valve with part of beak of left valve showing beneath. Greensboro. $\times \%$	
3. Interior of right beak. Same locality.	
4. Interior of left beak. Same locality.	



MOLLUSCA-PELECYPODA.

## PLATE XCVII.

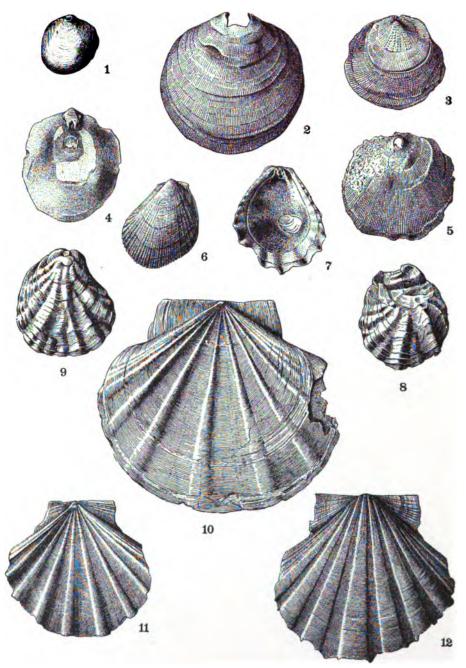
- <del> </del>	PAGE
Fig. 1. LITHOPHAGA SUBALVEATA Conrad	
Fig. 2, 3. Lithophaga ionensis n. sp	364
Fig. 4. Crenella virida n. sp.  4. Specimen from Greensboro.	365
Fig. 5. Crenella gubernatoria n. sp	365
Figs. 6, 7. Modicius ducatellii Conrad	366
Figs. 8a, 8b. Modicious virginicus (Conrad)	366
Figs. 9, 10. Modicius dalli n. sp	367
Figs. 11, 12. Modicius ionensis n. sp	368
Fig. 13. Modiolaria curta n. sp	368



MOLLUSCA-PELECYPODA.

## PLATE XCVIII.

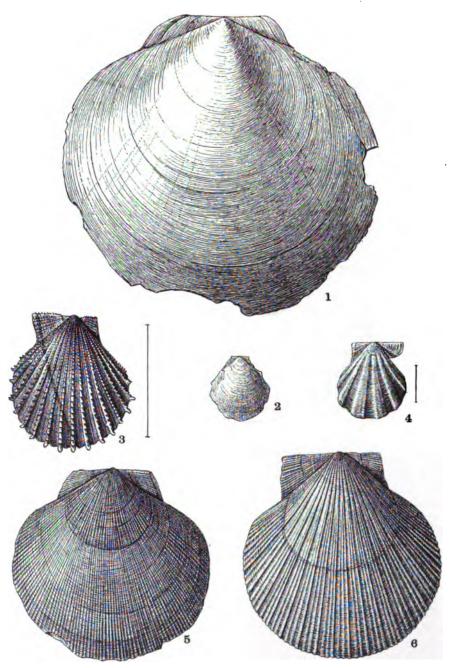
	PAGE
Fig. 1. Anomia simplex d'Orbigny	369
1. Exterior of upper valve. St. Mary's River.	
Figs. 2-5. Anomia aculeata Gmelin	369
2. Exterior of broken upper valve. Plum Point.	
3. Exterior of lower valve. Jones Wharf.	
4. Interior of lower valve. Same locality.	
5. Exterior of lower valve. Same locality.	
Fig. 6. Lima papyria Conrad	370
6. Exterior of right valve. Plum Point.	
Figs. 7-9. PLICATULA DENSATA Conrad	371
7. Interior of lower valve. Evans farm near Church Hill.	
8. Exterior of upper valve. Same locality.	
9. Exterior of upper valve. Same locality.	
Figs. 10-12. Pecten (Pecten) Humphbeysh Conrad	372
10. Exterior of lower valve. Plum Point. $\times \frac{1}{2}$ .	
11. Exterior of another lower valve. Same locality.	
12. Exterior of an upper valve. Same locality.	
and appearance of the appearance of the control of	



MOLLUSCA—PELECYPODA.

## PLATE XCIX.

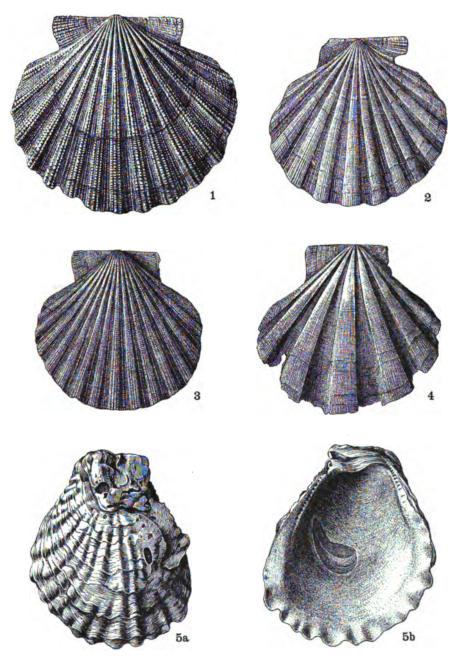
Fig. 1. Pecten (Amusium) mortoni Ravenel	PAGE 372
Museum. × ½	
Fig. 2. Pecten (Pseudamusium) cerinus Conrad	373
Fig. 3. Pecten (Chlamys) coccymelus Dall	374
Fig. 4. Pecten (Chlamys) Bogersi Conrad	375
Fig. 5. Pecten (Chlamys) clintonius Say	375
Fig. 6. Pecten (Chlamys) marylandicus Wagner	376



MOLLUSCA-PELECYPODA.

# PLATE C.

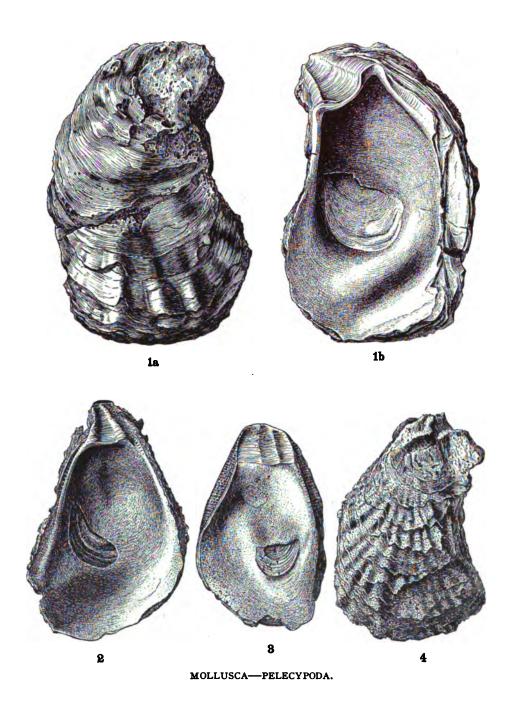
Fig. 1. Pecten (Chlamys) madisonius Say	377
Fig. 2. Pecten (Chlamys) jeffersonius Say	378
Fig. 3. Pecten jeffersonius var. Edgecombensis Dall	379
Fig. 4. Pecten Jeffersonius var. septenarius Say	379
Figs. 5a, 5b. Ostrea sellæformis var. Thomasii (Conrad)	380



MOLLUSCA—PELECYPODA.

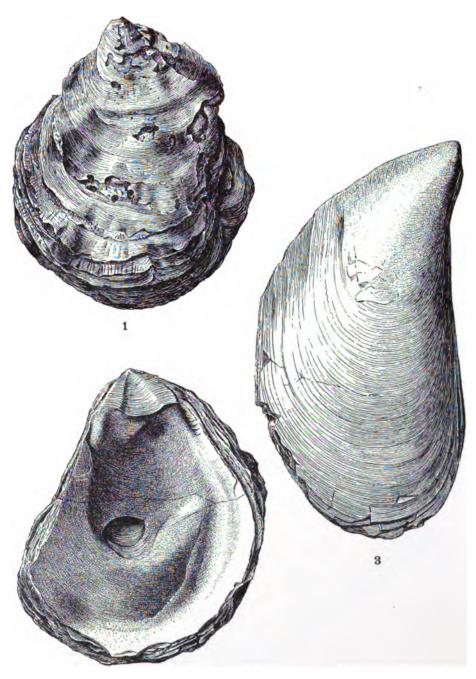
## PLATE CI

		PAGE
Figs. 1a, 1b. Ostrea trigonalis Conrad		381
1a. Exterior of lower valve. Greensboro.	× %	
1b. Interior of the same valve. $\times$ %		
Figs. 2-4. Ostrea carolinensis Conrad	•••••	381
2. Interior of lower valve. Governor Run.	× %	
3. Interior of upper valve. Same locality.	× %	
4. Exterior of lower valve. Same locality.	× %	



# PLATE CII.

	PAG
Figs. 1, 2. Ostrea percrassa Conrad	382
1. Exterior of upper valve. Magruder Ferry. $\times \frac{1}{2}$	
2. Interior of lower valve. Same locality. $\times \frac{1}{2}$	
Fig. 3. Melina maxillata (Deshayes)	383
3 Exterior of right valve Plum Point × %	

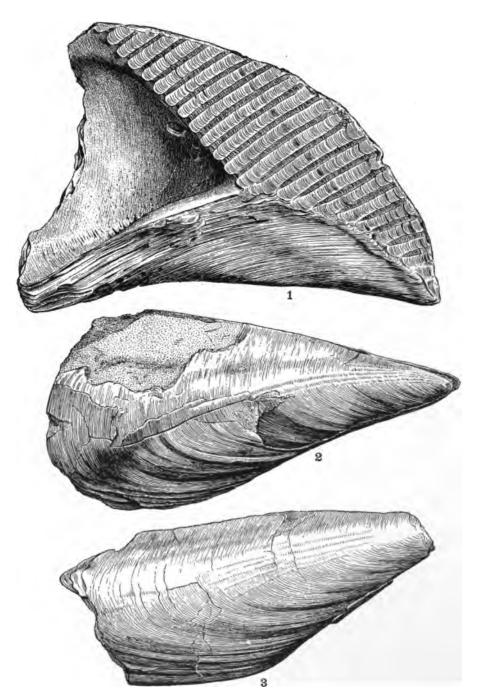


2

MOLLUSCA—PELECYPODA.

## PLATE CIII.

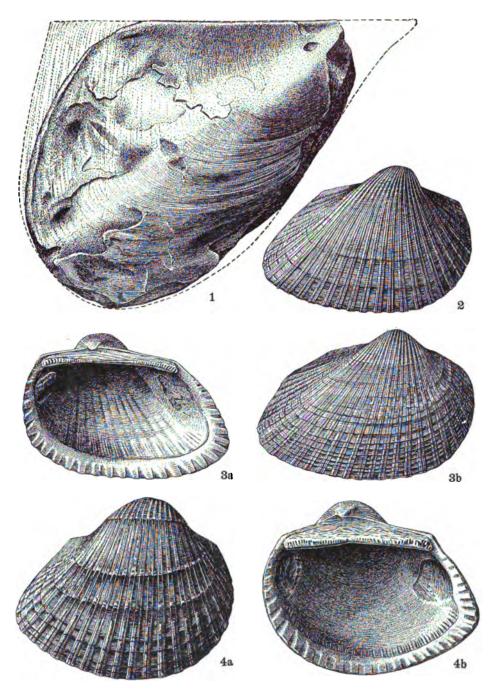
Fig. 1. Melina maxillata (Deshayes)	383
1. Interior of broken valve showing hinge and ligament grooves. Jones Wharf. $\times$ %	
Figs. 2, 3. Atbina harrisii Dall	384
2. Exterior of right valve. Pawpaw Point. × %	
3. Exterior of decorticated right valve. Jones Wharf. U. S. National	
Museum. (After Dall.) $\times \%$	



MOLLUSCA—PELECYPODA.

## PLATE CIV.

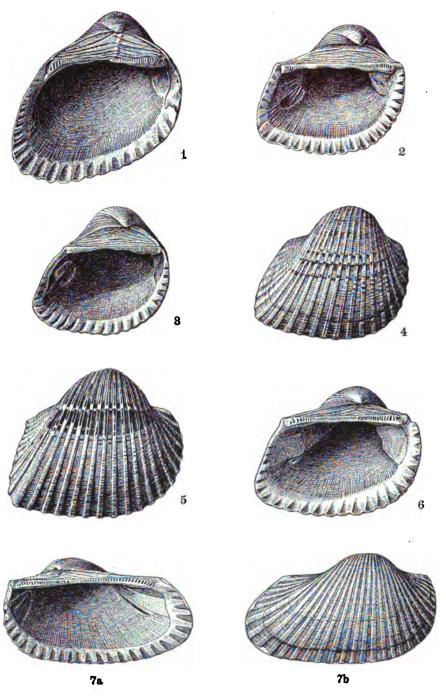
	PAGE
Fig. 1. Atrina piscatoria n. sp	384
1. Exterior of right valve. Fishing Creek. × %	
Figs. 2-3b. Abca (Scaphabca) subbostrata Conrad	385
2. Interior of right valve. Plum Point.	
3a. Exterior of right valve. Same locality.	
3b. Exterior of right valve. Same locality.	
Figs. 4a, 4b. Arca (Scapharca) elnia n. sp	386
4a. Exterior of right valve. Jones Wharf.	
4b. Interior of right valve. Same locality.	



MOLLUSCA-PELECYPODA.

## PLATE CV.

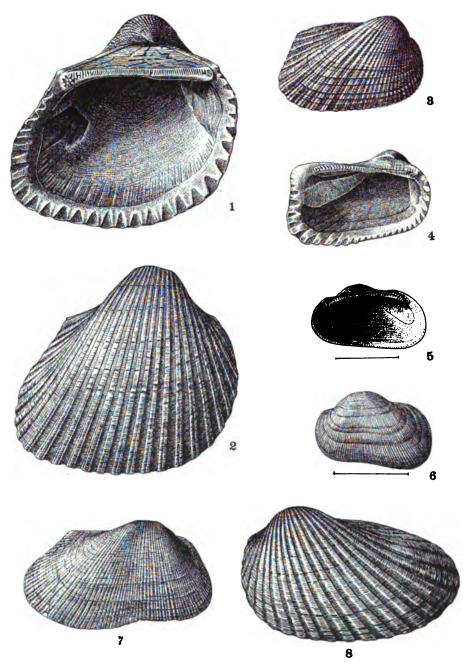
Fig. 1. Arca (Scapharca) clisia Dall	286
1. Interior of left valve. Nomini Cliffs, Virginia. U. S. Nation Museum. 56 mm. (After Dall.)	
Figs. 2-6. Arca (Scaphabca) stamines Say	387
2. Interior of left valve. Flag Pond.	
3. Interior of left valve of short variety. Same locality.	
4. Exterior of right valve. Same locality.	
5. Exterior of right valve. Dover Bridge.	
6. Interior of left valve. Peach Blossom Creek.	
Figs. 7a, 7b. Arca (Scaphabca) arata Say	388
7a. Interior of right valve. St. Mary's River.	
7b. Exterior of left valve. Same locality.	



MOLLUSCA-PELECYPODA.

## PLATE CVI.

I DAIL OVI.	
1	PAGE
Figs. 1, 2. Arca (Scapharca) idonea Conrad	389
1. Interior of left valve. St. Mary's River.	
2. Exterior of right valve. Same locality.	
Figs. 3, 4. Arca (Noëtia) incile Say	390
3. Exterior of right valve. Darlington, South Carolina. Johns Hopkins University.	
4. Interior of left valve. Same locality.	
Figs. 5, 6. Arca (Barbatia) centenabia Say	391
5. Interior of right valve. Jones Wharf.	
6. Exterior of left valve. Same locality.	
Fig. 7. Abca (Barbatia) marylandica Conrad	392
7. Exterior of right valve. Plum Point. U. S. National Museum.	
Fig. 8. Abca (Barbatia) vibginiæ Wagner	392
8. Exterior of left valve of type specimen. Miocene of Virginia	
(Nansemond River?) 84 mm. Wagner Free Inst. Sci. (After	
Dall.)	



MOLLUSCA—PELECYPODA.

## PLATE CVII.

Figs. 1, 2. GLYCYMERIS PARILIS (Conrad)	PAGE 393
1. Interior. 3 miles south of Fishing Creek. $\times 5/6$	
2. Exterior of opposite valve. Same locality. $\times 5/6$	
Figs. 3, 4. Glycymeris subovata (Say)	394
3. Interior. Greensboro.	
4. Exterior. Same locality.	
Figs. 5-8. Leda Liciata (Conrad)	395
5. Exterior of left valve with coarse sculpture. Plum Point.	
6. Interior of left valve. Same locality.	
<ol> <li>Exterior of left valve with very fine close-set concentric sculpture.</li> <li>Same locality.</li> </ol>	
8. Exterior of left valve with very coarse sculpture. Same locality.	
Figs. 9, 10. Leda liciata var. amydra Dall	396
9. Interior of left valve. Plum Point.	
10. Exterior of left valve. Same locality.	

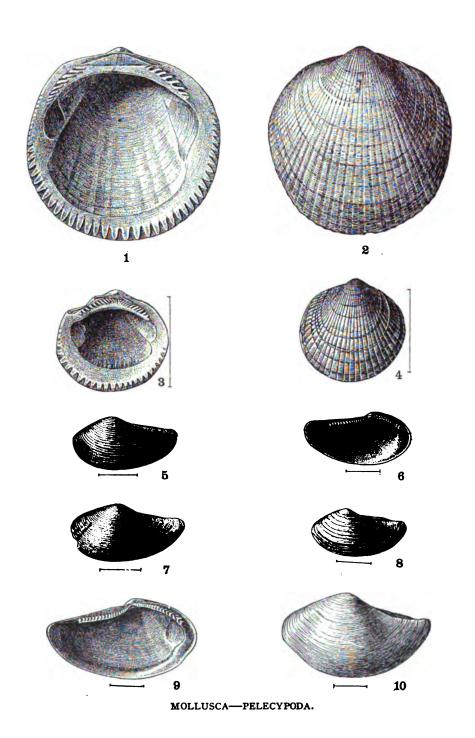
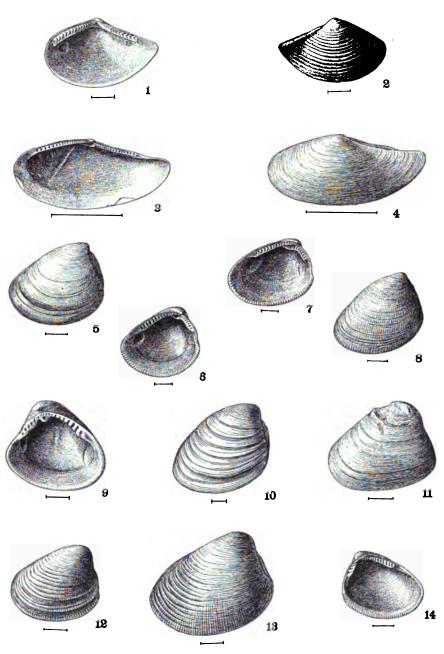


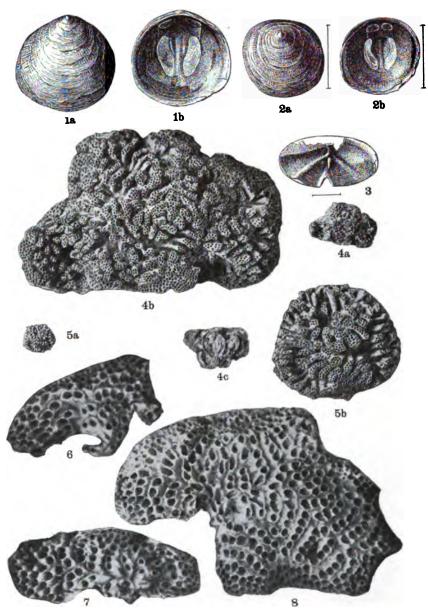
PLATE CVIII.	
	PAGE
Figs. 1, 2. Leda concentrica (Say)	397
<ol> <li>Interior of right valve. Pocomoke City Well, 53 to 75 feet from surface.</li> </ol>	
2. Exterior of right valve. Same locality.	
Figs. 3, 4. Yoldia Lævis (Say)	397
3. Interior of right valve. Jones Wharf.	
4. Exterior of left valve. Same locality.	
Figs. 5, 6. Nucula proxima Say	398
5. Exterior of right valve. Dover Bridge.	
6. Interior of left valve. Same locality.	
Figs. 7, 8. Nucula sinaria Dall	399
7. Interior of left valve. Cove Point.	
8. Exterior of right valve. Same locality.	
Figs. 9-11. Nucula taphria Dall	400
9. Interior of right valve. St. Mary's River.	
10. Exterior of right valve from Natural Well, North Carolina. U. S. National Museum. (After Dall.)	
11. Exterior of right valve. St. Mary's River.	
Figs. 12-14. Nucula prunicola Dall	401
12. Exterior of right valve. Plum Point.	
13. Exterior of right valve. Same locality. U. S. National Museum.	
(After Dall.)	
14. Interior of right valve. Same locality.	



MOLLUSCA—PELECYPODA.

#### PLATE CIX

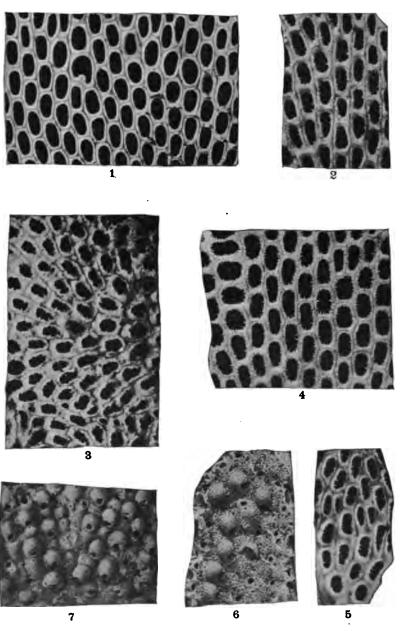
Pa	LGE
Figs. 1-3. Discinisca Lugubris (Conrad) 4	02
1a. Exterior of dorsal valve. Jones Wharf.	
1b. Interior of the same.	
2a. Exterior of dorsal valve of another specimen. Same locality.	
2b. Interior of the same.	
3 Interior of ventral valve. Same locality.	
Figs. 4, 5. Theonoa glomerata n. sp 4	06
4a. Upper surface of a large specimen. St. Mary's River. × %	
4b. Another view of the same. $\times 16/5$	
4c. Under surface of the same. $\times$ %	
5a. Upper surface of a small specimen. Same locality. × 4/8	
5b. Another view of the same. $\times$ 16/5	
Figs. 6-8. Idmonea (?) expansa n. sp 4	04
6. View of a young specimen. Cove Point. $\times$ 16	
7. View of another young specimen. Same locality. $\times$ 16	
8. A large specimen from the same locality and attached to the same	
shell, showing the pinnate arrangement of the zooecia adopted	
in later stages of growth. $\times$ 16	



MOLLUSCOIDEA—BRACHIOPODA AND BRYOZOA.

## PLATE CX.

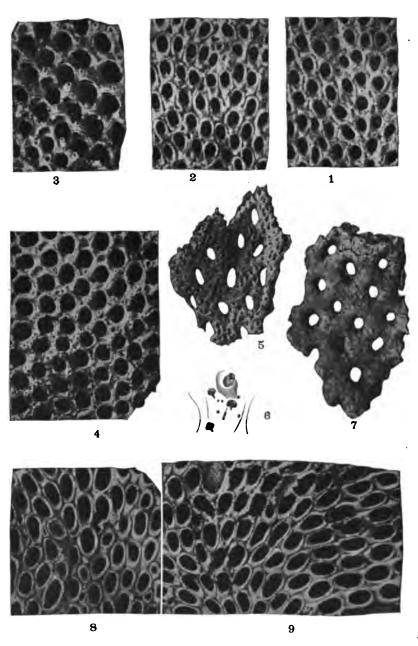
Fig. 1. Membranipora fossulifera n. sp.	PAGE Ang
1. Portion of the surface of a fine specimen. Reed's. × 16	100
Figs. 2-5. Membranipora oblongula n. sp	407
2. Surface of an average specimen. Governor Run. $\times$ 20	
3. Surface of another specimen having thicker walls than usual. Same locality. $ imes 16$	
4. Portion of the surface of a specimen having relatively larger apertures and thinner walls than in the more typical form of the species. Plum Point. × 16	
5. Portion of the surface of another specimen showing irregularity	
in development of some of the zooecia. Governor Run. $ imes$ 16	
Fig. 6. MICBOPORELLA PRÆCILIATA n. sp	415
6. Portion of a zoarium of this species growing on Pecten madisonius. The ovicells are more abundant on specimen than usual. Cove Point. $\times$ 16	
Fig. 7. Micboporella inflata n. sp	416
7. Portion of the surface of a specimen growing on a small mollusk. Jones Wharf. $\times$ 16	



MOLLUSCOIDEA—BRYOZOA.

## PLATE CXI.

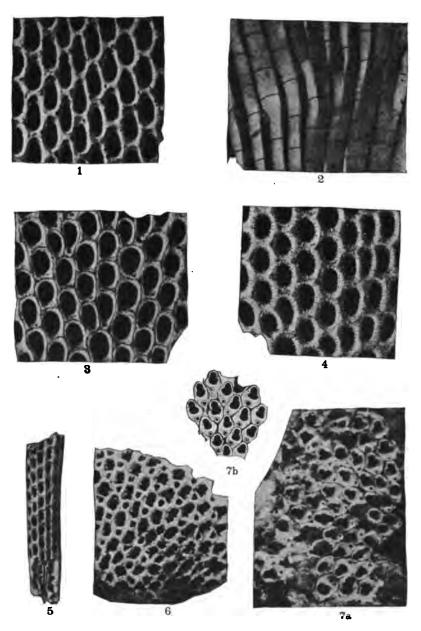
7/	LGE
Figs. 1, 2. Membranipora parvula n. sp	10
1. A portion of the surface. Reed's. × 16	
2. Another portion of the same. $\times$ 16	
Figs. 3, 4. Membranipora caminosa n. sp 4	09
3. Portion of a well-preserved specimen having ovicells. Jones Wharf. $ imes 16$	
4. Portion of another specimen not so well preserved and having very	
. few ovicells. Same locality. $\times$ 16	
Figs. 5-7. Retepora doverensis n. sp 4	22
5. Celluliferous surface of a small fragment. Dover Bridge. $\times 32/5$	
6. A few cells of same. $\times 24$	
7. Portion of the reverse side of another fragment from the same	
locality. $\times$ 32/5	
Figs. 8, 9. Membranipora germana n. sp 4	10
8. A portion of the surface of a specimen in good condition. $ imes$ 16	
9. Another portion of the same. $\times$ 16	



MOLLUSCOIDEA-BRYOZOA.

### PLATE CXII.

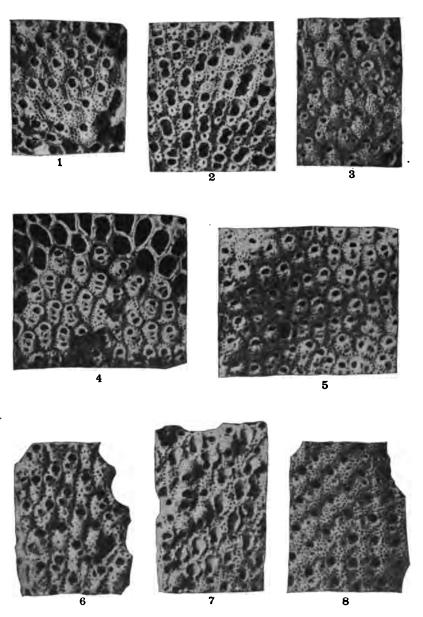
	PAGE
Fig. 1. Membranipora nitidula n. sp	412
1. Surface of rather well-preserved fragment. Pawpaw Point. $ imes$ 16	
Figs. 2-4. Membranipora bifoliata n. sp	411
2. Dorsal face of one of the two layers of zooecia. Jones Wharf. $\times$ 16	
3. Surface of young specimen. Same locality. $ imes$ 16	
4. Surface of an old specimen. Same locality. × 16	
Fig. 5. Membranipora fistula n. sp	413
5. The fragment upon which this species is founded. St. Mary's River. $\times$ 32/5	
Fig. 6. Cupularia denticulata (?) (Conrad)	414
6. Portion of the surface of the specimen described. St. Mary's River. $\times 16$	
Figs. 7a, 7b. Amphiblestrum agellus n. sp	414
7a. One of several small patches of this species growing on Pecten madisonius. Cove Point. × 16	
7b. A number of the zooecia of same in outline. $\times$ 34	
ini ii mumor or one necessar or name in outline. // el	



MOLLUSCOIDEA—BRYOZOA.

#### PLATE CXIII.

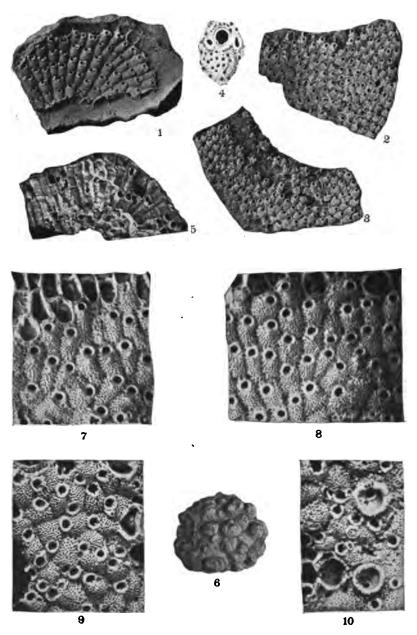
PLATE CXIII.	
•	PAGE
Figs. 1, 2. Lepralia (?) reversa n. sp	426
1. Portion of one of several patches of this species, showing zooecia with thin raised borders. Cove Point. $ imes 16$	
2. Portion of another zoarium of which nearly all the zooecia are provided with ovicells. On Pecten madisonius. Same locality. $\times$ 16	
Fig. 3. Micropobella præciliata n. sp	415
3. Portion of specimen not well preserved and somewhat doubtfully referred to this species. Ovicells are wanting. Jones Wharf. $\times$ 16	
Figs. 4, 5. Adequellopsis umbilicata (Lonsdale)	417
4. Portion of a mass of this species, showing zooecia in youthful stages of development. Petersburg, Virginia. $\times$ 16	
5. Portion of another mass, showing zooecia in an advanced stage of development. Same locality. $\times16$	
Figs. 6-8. MICROPORELLA (?) BIFOLIATA n. sp	417
6. Surface of a fragment, illustrating appearance in young specimens. Cordova. $\times$ 16	
7. Portion of another fragment having ovicells. Same locality. $\times 1$	6
8. Portion of a third piece from Cordova, showing adult appearance. $\times$ 16	



MOLLUSCOIDEA-BRYOZOA.

#### PLATE CXIV.

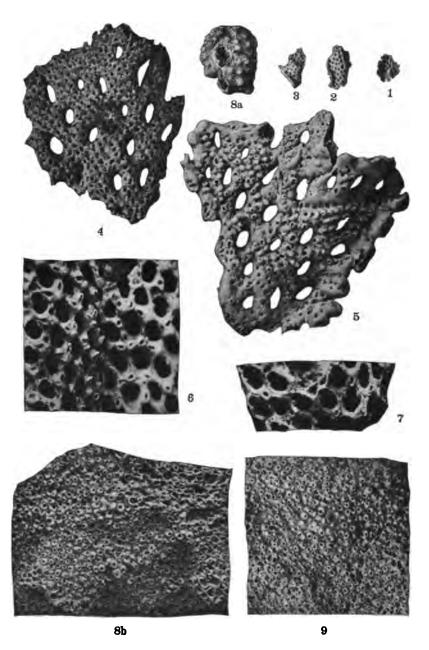
FLAIR CAIV.	
·	PAGE
Fig. 1. Schizoporella subquadrata n. sp	420
1. Finely preserved specimen of this species. Governor Run. ×5	
Figs. 2-4. Schizoporella latisinuata n. sp	421
2. A patch of this species. Jones Wharf. $\times 32/5$	
3. Another patch from the same locality. $\times$ 32/5	
4. One zooecium of same. × 24	
Fig. 5. Adeonellopsis umbilicata (Lonsdale)	417
<ol> <li>Edge view of vertically fractured specimen, showing columnar structure produced by direct superposition of successive zooecia. Petersburg, Virginia. × 32/5</li> </ol>	
Figs 6-10. Schizoporella informata (Lonsdale)	419
6. A strongly nodulated mass.	
7. A portion of the surface of another specimen. × 16	
8. Another portion of the same. × 16	
9. A portion of the surface of a third specimen from Petersburg,	
Virginia, showing less regular arrangement of zooecia and, in	
the latter figure, remains of three of the large globular ovicells. $ imes 16$	
10. Another portion of the same. $\times$ 16	



MOLLUSCOIDEA—BRYOZOA.

#### CXV

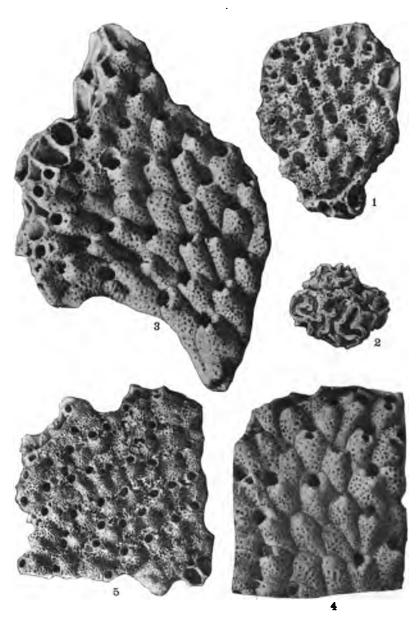
CAV.	
P	AGE
Figs. 1-5. Retepora doverensis n. sp	122
1. View of a small specimen. Dover Bridge. × 4/2	
2. Another specimen. Same locality. × %	
3. A third specimen. Same locality. × %	
4. A fourth fragment without ovicells and with few large avicularia.	
The latter are present chiefly on the worn lower end of the specimen. $\times$ 32/5	
5 A fifth piece from the same locality with numerous ovicells and avicularia. $\times$ 32/5	
Figs. 6, 7. Amphiblestrum constrictum n. sp 4	113
6. Portion of a patch of this species growing partly on one of the radial ribs and partly in a groove between the ribs of valve of Pecten madisonius. In the middle of the figure the prominent	
avicularia are shown in profile. Cove Point. × 16	
7. A few zooecia showing normal form of same. × 16	
Figs. 8a, 8b, 9. Lepralia maculata n. sp	<b>42</b> 3
8a. A specimen growing, as usual, upon a small mollusk and having	
the surface elevations or "maculae" unusually well developed. Plum Point. $\times \%$	
8b. Portion of surface of same. $\times 32/5$	
9. Portion of surface of a larger mass from the same locality. $\times 32/5$	



MOLLUSCOIDEA-BRYOZOA.

## PLATE CXVI.

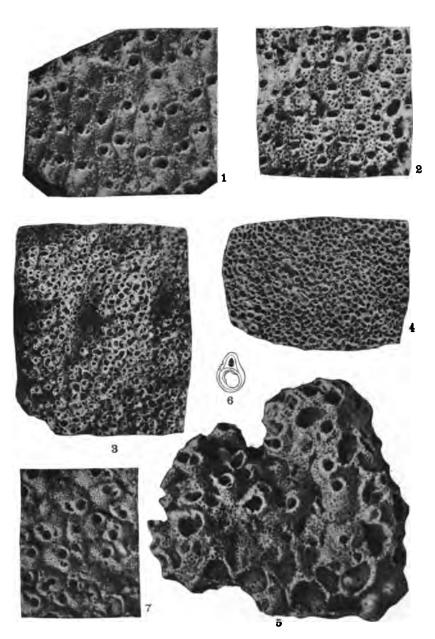
Fig. 1. Palmicellaria punctata n. sp	428
1. View of the specimen described. Reed's. $ imes$ 16	
Figs. 2-4. Palmicellaria convoluta n. sp	427
2. View of a specimen illustrating the mode of growth believed to characterize this species. Reed's. × %	
3. View of a fragment. Same locality. × 16	
4. Portion of another fragment showing several of the problematical closed cells. Same locality. $\times$ 16	
Fig. 5. Lepralia montifera n. sp	424
5. The specimen upon which this species is founded. The photographic base of the drawing was too dark to admit of bringing the elevation of the front of the zooecia into the relief shown by the original. St. Mary's River. × 16	



MOLLUSCOIDEA-BRYOZOA.

## PLATE CXVII.

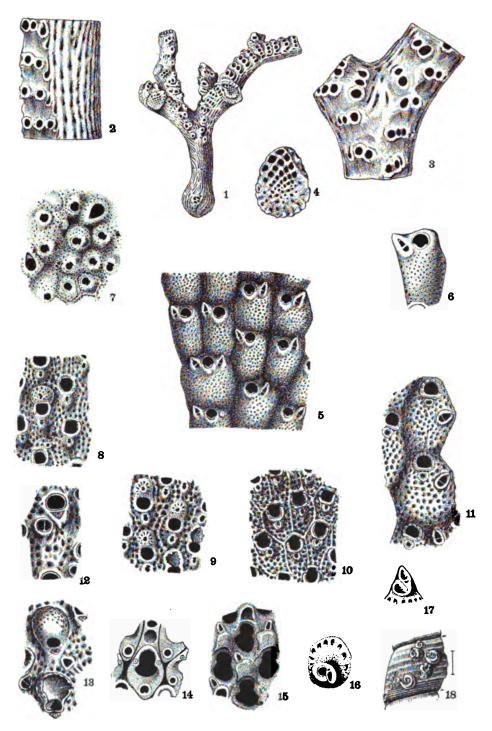
	PAGE
Fig. 1. Schizoporella doverensis n. sp	421
Fig. 2. LEPRALIA MARYLANDICA n. sp	425
Figs. 3, 4. Cellepora massalis n. sp	,
Figs. 5, 6. Cellepora cribrosa n. sp	429
Fig. 7. Schizoporella cumulata n. sp	422



MOLLUSCOIDEA-BRYOZOA.

## PLATE CXVIII.

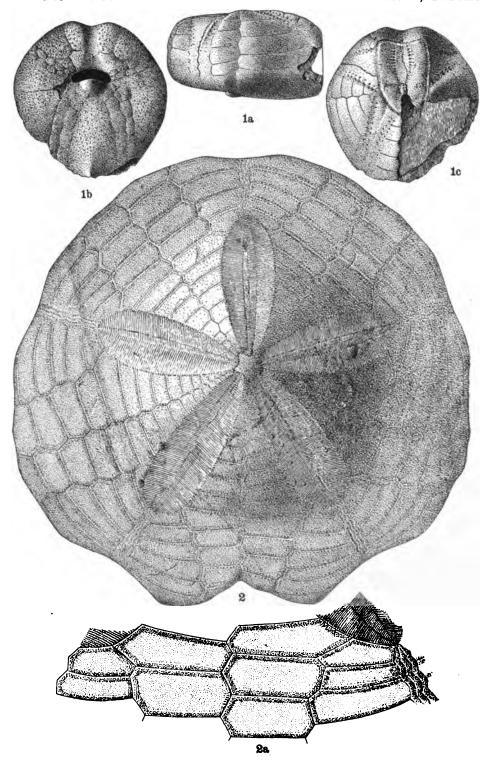
PAGE
Figs. 1-4. Crisina striatorora n. sp
× 21/4
2. Lateral view of one of the branches of the same specimen. $\times$ 23 3. Upper surface of the same. $\times$ 17
4. View of the broken end of one of the branches of the same. $ imes$ 17
Figs. 5, 6. Schizoporella subquadrata n. sp
<ul> <li>5. Part of the specimen figured on Plate CXIV. × 17</li> <li>6. One zooecium of a specimen from Governor Run. × 19½</li> </ul>
or one account of a specimen from developed from the second
Fig. 7. Lepralia maculata n. sp
7. A small portion of the surface of one of the specimens figured on Plate CXV. The figure is intended to show the form of the orifice and the two kinds of avicularia. $\times$ 17
Figs. 8-10. Lepralia (?) reversa n. sp
8. Several zooecia of a specimen having ovicells. × 28½
9. Several zooecia of another specimen having ovicells. $\times$ 28½
10. Several zooecia having boundaries unusually well defined. $\times$ 28 $\frac{1}{2}$
Fig. 11. Microporella præciliata n. sp
11. Two zooecia of the specimens figured on Plate CXIII, Fig. 3.
× 281/2
Figs. 12, 13. Microporella (?) bifoliata n. sp
12. A zooecium and an avicularium. × 28½
13. Two zooecia with ovicells. × 28½
Fig. 14. Amphiblestrum agellus n. sp
14. View of a single zooecium and portions of several adjoining ones.
× 281/2
Fig. 15. Amphiblestrum constrictum n. sp
15. Several zooecia with ovicells. × 17
Figs. 16, 17. Cellepora massalis n. sp
16. Front view of a zooecium of the specimen figured on Plate CXVII, Fig. 3. St. Mary's River. × 17
17. Profile view of the same. St. Mary's River. $\times$ 17
Fig. 18. Spiborbis calvertensis n. sp
18. View of several individuals attached to the surface of a Turri-
tella. Plum Point. × 3/2



MOLLUSCOIDEA—BRYOZOA, AND VERMES.

## PLATE CXIX.

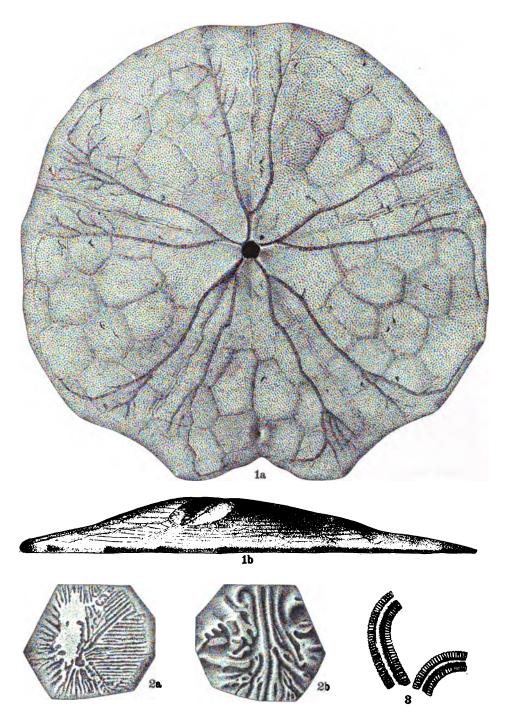
Figs. 1a, 1b, 1c. Echinocardium orthonotum Conrad	PAGE 430
1a. Lateral surface of test. Jones Wharf.	
1b. Lower surface of same specimen.	
1c. Upper surface of same specimen.	
Figs. 2, 2a. Scutella aberti Conrad	432
2. Upper surface of test. Jones Wharf.	
2a. Enlarged plate of same specimen.	



ECHINODERMATA.

### PLATE CXX.

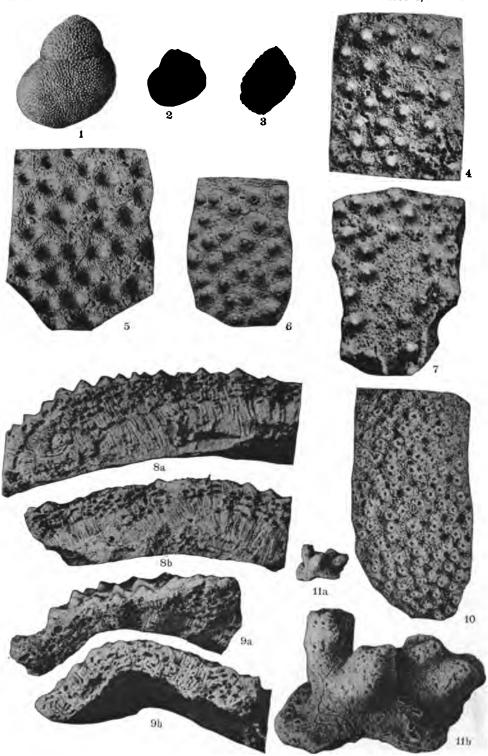
	PAGE
Figs. 1a-2b. Scutella aberti Conrad	432
1a. Lower surface of test. Jones Wharf.	
1b. Lateral surface of test of same specimen.	
2a. Interambulacral plate.	
2b. Another view of the same (?).	
Fig. 3. Ophioderma (?) sp	433
? Fragment of arms St Mary's River	



ECHINODERMATA.

### PLATE CXXI

Tanta Caata	
	PAGE
Figs. 1-9. Hydractinia multispinosa n. sp	433
<ol> <li>The type specimen, growing, as usual, upon the shell of Polynices sp. and showing the average external appearance. U. S. National Museum.</li> </ol>	
<ol> <li>Two specimens showing extremes observed in number and size of surface spines. The latter possibly represent a distinct species or variety, approaching the European H. circum- vesticus (Wood).</li> </ol>	
4-7. Surface of four specimens showing slight variations partly due to preservation. $\times 8$	
8, 9. Edge views of four pieces of two specimens showing interlaminar spaces and other characters very well. The solid lower portions of the two upper pieces represent the space of the absorbed shell replaced by nearly solid coral tissue. U. S. National Museum. Plum Point. × 8	
Fig. 10. MILLEASTER INCRUSTANS n. gen. et. sp	436
A 6	
Figs. 11a, 11b. MILLEASTER (?) SUBRAMOSUS n. sp	437
11b. Another view of the same. The large openings are of small barnacles partly covered by the hydrozoan. $\times$ 4	



COELENTERATA—HYDROZOA.

### PLATE 1 CXXII.

Fig	s. :	1-3. Pa	RACY	ATHUS VA	ughani Gan	e					438
	1.	View	of	several	specimens	attached	to	an	oyster	shell.	
		Car	ter's	Landing,	Virginia.	× 1/4					
	2.	The c	luste	r of three	individuals	more enla	rged	l <b>.</b>			
	3.	The la	arges	t individu	al represen	ted in Fig.	1 m	ore e	nlarged.		
	T	he figu	red s	pecimen	in the collec	ction of Jo	hns	Hopk	ins Uni	versity.	

<sup>&</sup>lt;sup>1</sup>The following plates illustrating the corals are reproductions from photographs. Mr. Levin C. Handy made the negatives; prints on velox paper were made by Mr. Norman W. Carkhuff of the U. S. Geological Survey. Miss Frances Wieser retouched some of the prints.







COELENTERATA—ANTHOZOA.

## PLATE CXXIII.

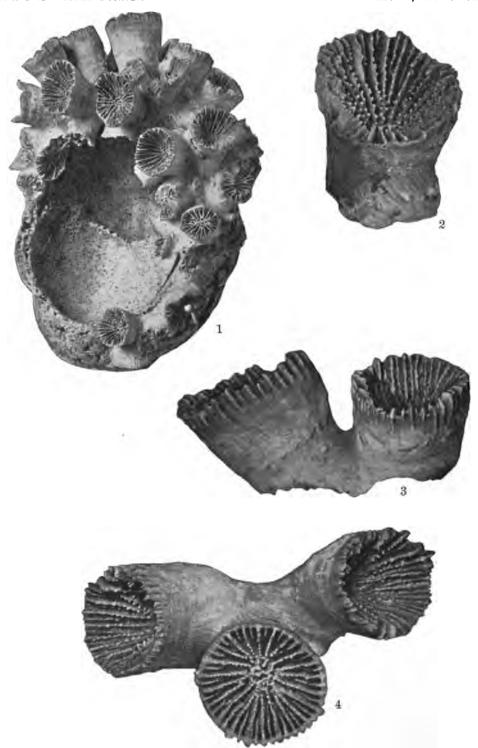
P	ΑG
Figs. 1-4. Astrhelia palmata (Goldfuss)	13
<ol> <li>The most normal specimen in the collection. The other specimens from the same locality show considerable fusion of the branches.         David Kerr's place, Talbot County, Maryland. Length 114 mm.     </li> <li>Palmate specimen. Choptank River. ¼ to ½ mile below Parker's Landing. Length 115 mm.</li> </ol>	
3. Specimen with coalescing branches. Patuxent Cliffs, St. Mary's County. Greatest length 69 mm. 4. Young specimen. Plum Point. Greatest horizontal measurement 44 mm. All four specimens in the U. S. National Museum.	



COELENTERATA—ANTHOZOA.

## PLATE CXXIV.

		PAGI
Figs.	1-4. ASTRANGIA LINEATA (Conrad). (All figures from the same specimen.)	441
1.	General view of a colony attached to a Crepidula shell.	
	Distance from top of uppermost corallite to lowest portion of	
	shell as placed in Fig. 52 mm. $\times$ about 1%	
2.	View of interior of a calice to show septal dentations. $\times$ about 5	
3.	Enlarged view of costae. $\times$ 5	
4.	Calicular view. $\times 5$	
F	igured specimen in collection of Johns Hopkins University.	



COELENTERATA-ANTHOZOA.

# PLATE CXXV.

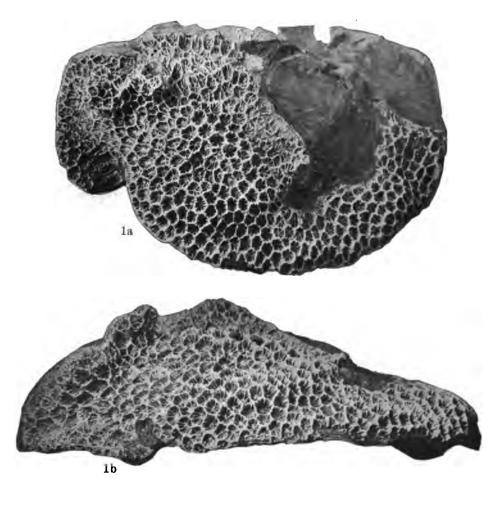
	PAGE
Figs. 1, 2. Astrangia (comangia) Conradi n. sp	442
1. General view of a specimen. Length 103 mm. × about 11/4	
2. Several calices. $\times$ about 5	
Figured specimen in collection of Wagner Free Institute of Science.	

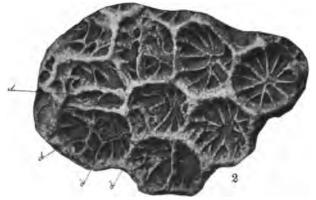


COELENTERATA—ANTHOZOA.

# PLATE CXXVI.

	PAG
Figs. 1-2.	SEPTASTREA MARYLANDICA (Conrad) encrusting young, described by Conrad as Astrea marylandica 44
1a, 1b.	Two views of the same specimen. Greatest length of the Pecten shell 112 mm. Note the protuberance that has been formed.
2. Figure	Calices of another specimen. The "d"'s indicate dissepiments; and show how new zoids are formed by dissepimental budding. The calice at the bottom of the figure has apparently divided by fission. The greatest distance across the figured portion is 16 mm. × about 5 d specimens in collection of Johns Hopkins University.
	· · · · · · · · · · · · · · · · · · ·

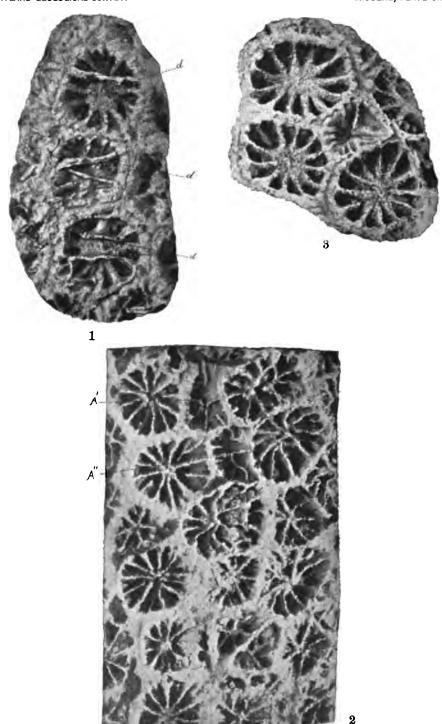




COELENTERATA—ANTHOZOA.

#### PLATE CXXVII.

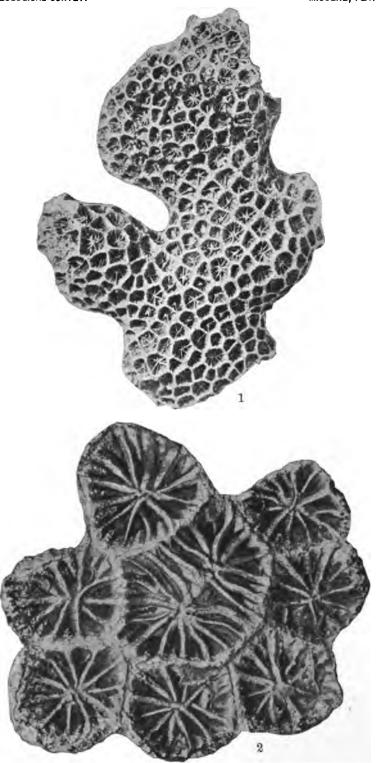
I DATE CANTIL	
1	PAG
Figs. 1-3. Septastrea marylandica (Confad)	44
1. Several calices of a specimen enlarged to show initiation of repro-	
duction by dissepimental budding. Distance across the three	
calices, 10 mm. × about 7	
<ol><li>Calices of another specimen. A', A", young calices, but so far advanced that one can not be sure which are the mother calices.</li></ol>	
Immediately below A" is a young calice, apparently being	
formed by dissepimental budding. $\times 7$	
3. Calices of still another specimen, showing budding between the corners of the calices. × about 6½	
Figured specimens in collection of Johns Hopkins University.	



COELENTERATA—ANTHOZOA.

# PLATE CXXVIII.

	PAGI
Figs. 1, 2. Septastrea marylandica (Conrad)	444
1. General view of a specimen 67 mm. high.	
2. Calices from specimens represented on Plate CXXIX. The large	
calice shows incipient fission. $\times 5\frac{1}{2}$	
Figured specimens in collection of Johns Hopkins University.	



COELENTERATA--ANTHOZOA.

# PLATE CXXIX.

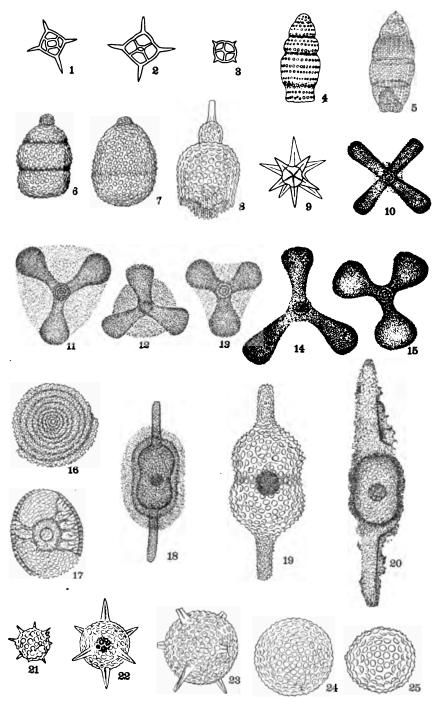
	PAG
SEPTASTREA MABYLANDICA (Conrad)	44
General view of a specimen 175 mm. long, the figure slightly less than	
natural size.	
Figured specimen in collection of Johns Hopkins University.	



COELENTERATA—ANTHOZOA.

### PLATE CXXX.

	PAGE
Figs. 1, 2. DISTEPHANUS CRUX (Ehrenberg)	
2. Larger pileated piece of skeleton. Same locality. $\times$ 375	
Fig. 3. Dictyocha fibula (?) Ehrenberg	
Fig. 4. Lithocampe marylandica n. sp	450
Fig. 5. Eucyrtidium calvertense n. sp	450
Figs. 6, 7. STICHOCAPSA MACROPORA Vinassa	451
Fig. 8. Anthogyrtium doronicum Haeckel	451
Fig. 9. Lithasteriscus radiatus Ehrenberg	453
Fig. 10. Spongasteriscus marylandicus n. sp	453
Figs. 11-13. DICTYOCOBYNE PROFUNDA Ehrenberg	454
Fig. 14. Rhopalodictyum marylandicum n. sp	455
Fig. 15. Rhopalodictyum calvertense n. sp	455
Fig. 16. Porodiscus concentricus (Ehrenberg)	
Fig. 17. Phacodiscus calvertanus n. sp	
Fig. 18. Cannabilium sp	
Fig. 19. Cannartiscus amphicylindricus Haeckel	
Fig. 20. Cannartiscus marylandicus n. sp	
Fig. 21. Acanthosphæra parvula Vinassa	
Fig. 22. Hexalonche microsphæra Vinassa	
Fig. 23. Hexastylus simplex Vinassa	
Figs. 24, 25. Cenosphæra porosissima Vinassa	459

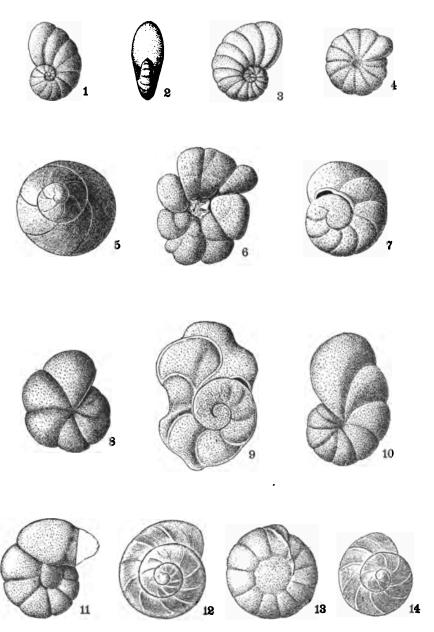


PROTOZOA-RADIOLARIA.

-----

### PLATE CXXXI.

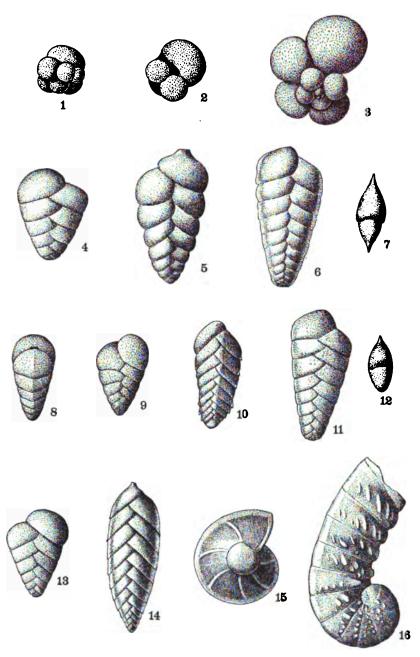
Figs. 1-3. Nonionina scapha (Fichtel and Moll)	460
Fig. 4. Polystomella striatopunctata (Fichtel and Moll) Jones Wharf. $\times$ 47	462
Fig. 5. Descorbing orbicularis (Terquem)	463
Fig. 6. Planorbulina mediterbanensis d'Orbigny	463
Figs. 7, 8. Thuncatulina lobatula (Walker and Jacob)	464
Figs. 9, 10. Truncatulina variabilis d'Orbigny	465
Fig. 11. Anomalina grosserugosa (Gümbel)	466
Figs. 12, 13. ROTALIA BECCARII (Linné)	467
Fig. 14. Rotalia beccarii var. bræckhiana Karrer	467



PROTOZOA—FORAMINIFERA.

## PLATE CXXXII.

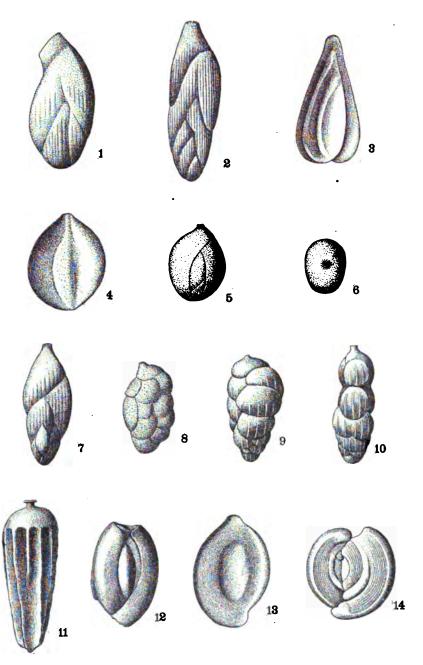
	PAGE
Figs. 1, 2, Globigerina Bulloides d'Orbigny	468
Fig. 3. Globigerina cretacea d'Orbigny	469
Fig. 4. Textularia abbreviata d'Orbigny	470
Fig. 5. Textularia agglutinans d'Orbigny Governor Run. $\times$ 43½	470
Figs. 6, 7. Textularia articulata d'Orbigny	471
Figs. 8, 9. Textularia gramen d'Orbigny	471
Fig. 10. Textularia carinata d'Orbigny	472
Figs. 11, 12. Textularia sagittula Defrance	472
Fig. 13. Textularia subangulata d'Orbigny	473
Fig. 14. Bolivina beyrichii var. Alata Seguenza	473
Fig. 15. Cristellaria cultrata (Montfort)	474
Fig. 16. Cristellaria wetherellii (Jones)	475



PROTOZOA-FORAMINIFERA.

## PLATE CXXXIII.

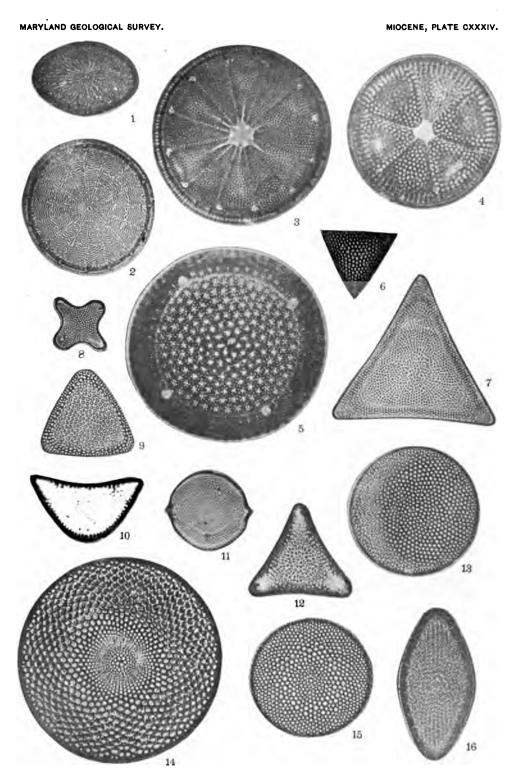
	PAGE
Fig. 1. POLYMORPHINA COMPRESSA d'Orbigny	476
Fig. 2. Polymorphina compressa var. striata n. var	476
Fig. 3. Polymorphina elegantissima Parker and Jones	476
Fig. 4. POLYMORPHINA GIBBA (d'Orbigny)	477
Figs. 5, 6. POLYMORPHINA LACTEA (Walker and Jacob)	477
Fig. 7. Polymorphina regina Brady, Parker and Jones	478
Fig. 8. UVIGERINA CANARIENSIS d'Orbigny	478
Fig. 9. Uvigerina pygmæa d'Orbigny	479
Fig. 10. UVIGERINA TENUISTRIATA Reuss	479
Fig. 11. Sagrina spinosa n. sp	480
Fig. 12. Miliolina seminulum (Linné)	481
Fig. 13. Spiroloculina tenuis (Czjzek)	483
Fig. 14. Spiroloculina grata Terquem	482



PROTOZOA—FORAMINIFERA.

### PLATE CXXXIV.

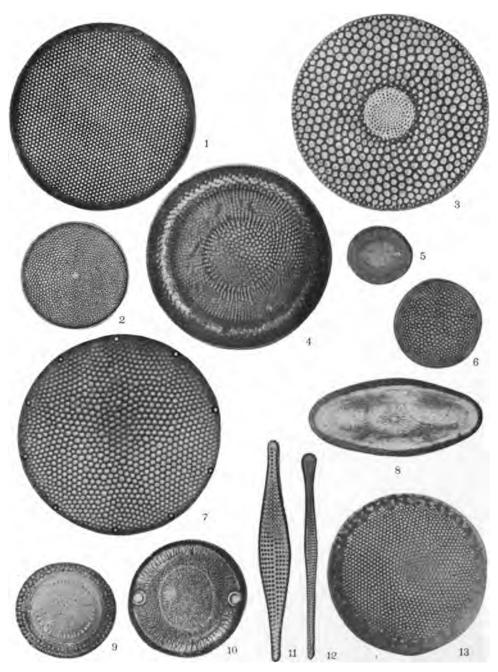
			_
Fig.	1.	ACTINOCYCLUS ELLIPTICUS Grunow. × 333½	FAGE 502
Fig.	2.	Actinocylus moniliformis Ralfs. × 3331/3	502
Fig.	3.	Actinoptychus heliopelta Grunow. $\times$ 166%	499
Fig.	4.	Actinoptychus undulatus (Kützing). $\times$ 3331/3	499
Fig.	5.	Aulacodiscus bogebsii (Bailey). $\times$ 166%	497
Fig.	6.	BIDDULPHIA ACUTA (Ehrenberg). $\times$ 333½	492
Fig.	7.	BIDDULPHIA CONDECOBA (Ehrenberg). $\times$ 333½	492
Fig.	8.	BIDDULPHIA DECIPIENS Grunow. × 3331/3	493
Fig.	9.	BIDDULPHIA INTERPUNCTATA (Grunow). $\times$ 333½	494
Fig.	10.	BIDDULPHIA SEMICIRCULARIS (Brightwell). $\times$ 333½	494
Fig.	11.	BIDDULPHIA SUBORBICULARIS Grunow. $\times$ 333 $\frac{1}{2}$	495
Fig.	12.	BIDDULPHIA TESSELLATA (Greville). × 3331/3	495
Fig.	13.	Coscinodiscus apiculatus Ehrenberg. $\times$ 333 $\frac{1}{2}$	503
Fig.	14.	Coscinodiscus asteroides Truan and Witt. $ imes 333 \frac{1}{2} \dots$	504
Fig.	15.	Coscinodiscus heteroporus Ehrenberg. × 3331/3	505
Fig.	16.	COSCINODISCUS LEWISIANUS Greville. × 3334	505



PLANTÆ-THALLOPHYTA, DIATOMACEÆ.

## PLATE CXXXV.

			PAGE
Fig.	1.	Coscinodiscus lineatus Ehrenberg. $\times$ 333 $\frac{1}{3}$	506
Fig.	2.	Coscinodiscus perforatus Ehrenberg. $\times$ 333 $\frac{1}{3}$	50 <del>6</del>
Fig.	3.	Craspedodiscus coscinodiscus Ehrenberg. $ imes$ 333 $\frac{1}{2}$	500
Fig.	4.	Craspedodiscus elegans Ehrenberg. × 166%	501
Fig.	5.	Diploneis microtatos var. Christianii Cleve. $\times$ 333½	487
Figs.	6, 7.	Eupodiscus inconspicuus Rattray. × 3331/3	498
Fig.	8.	Graya argonauta Grove and Brun. $\times$ 3331/3	496
Fig.	9.	Paralia sulcata (Ehrenberg) Cleve. $\times$ 333 $\frac{1}{2}$	491
Fig.	10.	Pseudauliscus spinosus (Christian). $\times$ 333 $\frac{1}{2}$	497
Fig.	11.	Rhaphoneis gemmifera Ehrenberg. $\times$ 333 $\frac{1}{3}$	488
Fig.	<b>12</b> .	Sceptroneis caduceus Ehrenberg. × 3331/2	489
Fig.	13.	STEPHANOPYXIS CORONA (Ehrenberg). × 33314	490



PLANTÆ-THALLOPHYTA, DIATOMACEÆ.



				•	
	•				
,					
	·				
					•

				,
				,
	•			
				•
	·			
			•	
-				
		• .		
	•			
				ļ

		DATE	DUE	
				<b>5</b> V
ı				<i>→</i> ∨
	-			 •
				 •
				•
				•
				 •
				 •
				 •
				 1
				 •
	<del> </del>			 •
				•
				 •

١..

Demco, Inc. 38-293

